PROCEEDINGS

"Navigating Opportunities and
Challenges for a Sustainable Digital Era"

SAEGIS UNDERGRADUATE RESEARCH SYMPOSIUM (SURS) - 2024

Organized by
Saegis Campus, Nugegoda, Sri Lanka
19th July 2024

Saegis Undergraduate Research Symposium 2024

"Navigating Opportunities and
Challenges for a Sustainable Digital Era"

Symposium Proceedings

19th July 2024

Organized by
Saegis Campus
Nugegoda, Sri Lanka.

Our Vision

To be the Preferred Higher Education Provider in Sri Lanka.

Our Mission

To produce high caliber, versatile and readily employable graduates exemplifying skills and talents in a caring and disciplined environment.

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Message from Chairman
Saegis Campus

Research is indispensable in the development and progress of Saegis Campus and our nation. We uncover new knowledge, drive innovation, and address critical social issues through research. As the Chairman of Saegis Campus, I emphasize the importance of research in shaping our institution's academic excellence and contributing to national development.

Research forms the foundation for advancements across various fields, including technology, healthcare, economics, and social sciences. By fostering a research culture at Saegis Campus, we empower our students and faculty to explore uncharted territories, seek solutions to pressing issues, and contribute to the betterment of our nation. Through rigorous and impactful research, we can unlock new possibilities, drive economic growth, and enhance the quality of our lives.

Furthermore, research provides a platform for Saegis Campus to collaborate with industry partners, government agencies, and stakeholders. By engaging in research projects and partnerships, we bridge the gap between academia and real-world applications, ensuring that our research outcomes have a direct impact on national development. This collaboration fuels innovation, facilitates knowledge transfer, and enables us to contribute to national policies and strategies that shape our country's future.

In conclusion, research is a driving force behind national development. By fostering a research-driven academic culture, we equip our students with the skills and mindset needed to tackle complex challenges, innovate, and contribute to the progress of our nation. Let us embrace the transformative power of research and work together to make a lasting impact on our society and beyond.

Bandara Dissanayaka
Chairman - Sakya Group of Companies

Message from Vice Chancellor
Saegis Campus

I am delighted to extend my message to the Saegis Undergraduate Research Symposium 2024, themed "Navigating Opportunities and Challenges for a Sustainable Digital Era." This symposium serves as a platform for our budding researchers to showcase their innovative ideas and insights into addressing the complexities of the digital age.

As we delve into discussions and presentations exploring how digital advancements can foster sustainability, I commend our students for their dedication to advancing knowledge and understanding. Your contributions are vital as we navigate the opportunities and challenges the digital era presents. I sincerely thank the organizing committee for their diligent efforts in orchestrating this symposium. Your commitment to academic excellence is evident, and I am confident that this event will inspire new perspectives and solutions that contribute to a sustainable future.

To our participants, I encourage you to embrace this opportunity for collaboration, learning, and growth. Your research endeavours are integral to shaping a brighter tomorrow. I look forward to the insightful deliberations and impactful outcomes from this symposium.

Professor Nalaka Jayakody

Message from Deputy Vice Chancellor Saegis Campus

Dear Esteemed Guests, Faculty, and Students,
I write this message with great pleasure to the Saegis Undergraduate Research Symposium 2024. This year's theme, "Navigating Opportunities and Challenges for a Sustainable Digital Era", could not be more timely or relevant. We are at the crossroads of rapid technological advancement and an increasing need for sustainable practices. This symposium provides a unique platform for our undergraduates to showcase their innovative research and insights into how we can navigate these opportunities and challenges effectively.

Our digital era has brought unprecedented opportunities. From advancements in artificial intelligence and data analytics to the proliferation of digital platforms that connect us globally, the potential for positive impact is vast. However, these advancements also come with significant challenges. Issues such as digital privacy, cybersecurity, digital addiction, and the environmental impact of technology require our urgent attention and innovative solutions.

As we explore these critical topics, I am confident that the research presented by our talented students will offer fresh perspectives and practical solutions. Their work is a testament to their dedication and intellectual rigour and a reflection of our institution's commitment to fostering an environment where academic inquiry and practical application go hand in hand.

I extend my heartfelt gratitude to our faculty members, who have guided and mentored these students, and to the organizing committee under the leadership of the Chairperson, Ms Yamuna Fernando, with the support of two Joint Secretaries Ms Amaa Ranaweera and Ms Wasana Manathunga and all staff who contributed to the success of SURS-2024 for their tireless efforts in making this symposium a success. Students' hard work and perseverance are truly commendable, and I am excited to see how your contributions will shape the future of our digital era.

I wish you all a productive and exciting symposium.

Senior Professor Emeritus W.G.D. Dharmaratna

Message from the Keynote Speaker

It gives me great pleasure to be with you this morning as the keynote speaker at the opening of the Saegis Undergraduate Research Symposium - 2024. The theme of the year 2024, "Navigating Opportunities and Challenges for a Sustainable Digital Era," resonates deeply with the current transformations that we witness from different perspectives.

By looking at the technological advancements, it is important to see how we use them effectively for the sustainable development of the country. This is important for Sri Lanka as we are in a critical stage which needs to understand the strategic window open at this time. People have started to discuss AI and all the latest developments. The country needs to understand the best practices of other regions on this as well. The role of researchers in this time cannot be underestimated. Sri Lanka should have practical researchers in universities with more managerial expertise. There should be a paradigm shift in the thinking of the country including the universities and higher education institutions.

Today's symposium is a testament to the vibrant research and academic spirit at Saegis Campus. It is a place where you can share your ideas with your colleagues and use this as one of the important platforms for the demonstration of talents. Your presentations with practical value will pave the way for a better country and a better world in terms of digital development.

I wish you all the best in the event with all blessings.

Professor Nalin Abeysekera

Message from the Symposium Chair

The members of the organizing committee and myself are with great pride and excitement to present the 01st Saegis Undergraduate Research Symposium (SURS 2024) under the theme "Navigating Opportunities and Challenges for a Sustainable Digital Era".

In an age where digital transformation is reshaping our world at an unprecedented pace, it is crucial to examine both the opportunities and challenges this presents. The theme of SURS 2024 shows our dedication to promoting a thorough grasp of sustainable practices in the digital sphere. As we navigate this complicated landscape, the ideas and solutions given here will help to shape a future that combines technological growth with environmental and social sustainability. Importantly, SURS 2024 serves as a platform for the undergraduates to present their research, share their insights, and propose solutions that contribute to this critical balance.

We are proud to present a diverse range of research tracks that reflect the interdisciplinary nature of contemporary challenges and opportunities: Business and Economic Development, Marketing Management, Computing and Information Systems, Data Science and AI, Education and psychology, and Human Resource Management. Each track has been carefully curated to highlight the innovative research and thought leadership emerging from our undergraduate community.

SURS 2024 would not have been possible without the dedication and hard work of many individuals. I would like to extend my deepest gratitude to our faculty mentors for their guidance and support, and the organizing committee for their tireless efforts in bringing this event to fruition.
To our student researchers, congratulations on your achievements. Your participation in this symposium is a testament to your commitment to academic excellence and your passion for making a positive impact. As we embark on this journey together, let us embrace the spirit of inquiry, collaboration, and innovation.

I wish you all an inspiring and successful symposium!

Ms.Yamuna Fernando

Message from Director of Academic and International Affairs

The rapid evolution of the digital revolution is poised to transform every facet of our lives, from communication and education to resource management and environmental protection. This transformative potential brings both exciting possibilities and potential pitfalls, necessitating a nuanced approach to navigate this new landscape effectively. The Saegis Undergraduate Research Symposium 2024 stands as a testament to the ingenuity and dedication of our undergraduate researchers. Your unwavering commitment to tackling this pivotal theme is truly inspiring. Through your research endeavors, you are exploring cutting-edge ideas and paving the way towards a more sustainable digital future. The symposium offers a valuable platform to disseminate your findings, engage in intellectual discourse with esteemed faculty and peers, and cultivate your research skills within a supportive environment. I encourage you to seize this opportunity to exchange knowledge, foster collaborations, and refine your ideas. At Saegis, we are deeply committed to nurturing excellence in undergraduate research. Your curiosity, innovative thinking, and dedication to sustainability are fundamental in shaping a brighter future for generations to come.

Dr. Krishani Jayasinghe

Message from the Dean
Faculty of Management, Humanities & Social Sciences

Dear Researchers,

I am honored to write a message to the Saegis Undergraduate Research Symposium of 2024. This event is a valuable opportunity for all researchers who gather and share their latest findings with the theme of Navigating Opportunities and Challenges for a Sustainable Digital Era. I have no doubt that this conference will be an enormous success in your extraordinary research.

The Faculty of Management, Humanities, and Social Sciences is honored to accompany you on this worthwhile and stimulating series of presentations and discussions. We aim to push the boundaries of research in academia in an advanced manner with a group of researchers who always captivate and redefine the field with novel ideas. I am confident that this platform will explore new horizons. We are excited to see the collaborations and networking opportunities that will strengthen future possibilities.

Let us make the most of this opportunity to connect, collaborate, and make a lasting impact on research and academia. We are grateful for your dedication in advancing research in dynamic disciplines and I look forward to engaging with all of you throughout the conference. Thank you for being a part of this outstanding gathering of scholars.

Ms. Gayani Arumapperuma

Message from the Dean
Faculty of Computing and Technology

Dear Researcher,

It is my great pleasure to write this message to you for the Saegis Undergraduate Research Symposium of 2024. As the Dean of the Faculty of Computing and Technology, I warmly welcome all participants and researchers to express my appreciation for your valuable research commitments.

Our research Symposium objective is to extend the research contributions by the researchers, scholars and industry experts from all around the world to share their knowledge and the research outcomes in the field of Computational Engineering and Information Systems as we move ahead in the 21st Century. The Symposium facilitates the publication of the most outstanding research and adoptive collaborations.

With a wide range of research topics, including data science, artificial intelligence, cyber security, and software engineering, it is an exciting gathering. We have invited the most outstanding and prestigious keynote speeches, panel discussions and presentations to make it a full insight into most recent advances in the field of computing technology.

I encourage all participants to actively participate of conferring, disseminate the knowledge and build strong network during the conference, and follow up to build new partnerships for future research studies. Thanks for all the members of the organizing committee of the Saegis Undergraduate Research Symposium to make this event success. Thanks also again to all the researchers who have contributed their research papers to this Symposium.

Mr. Prabath Samarasinghe

Invited Address

Short Biography
Dr Lorna Thomas

Dr Lorna Thomas is a seasoned professional with a rich background in the Higher Education sector spanning three decades. Her expertise encompasses the authorship and design of numerous undergraduate and postgraduate programs across diverse fields such as heritage, sustainability, ethics, cultural studies, and the service industry. Passionate about education, Lorna's focus extends to fostering inclusivity and widening participation, reflecting her commitment to equitable access to learning opportunities.

Drawing from her experiences living in both Europe and Africa, Lorna's profound appreciation for travel and culture infuses her work with a global perspective. More recently, Lorna has extensive experience in establishing and managing successful collaborative partnerships, both domestically and internationally. Her adeptness in overseeing the comprehensive academic profile and operations of multiple partners underscores her effectiveness in navigating complex educational landscapes.

Dr Lorna Thomas

"Navigating Opportunities and Challenges for a Sustainable Digital Era"

Dr. Lorna Thomas
Director of Partnerships
Christ Church Business School
Faculty of Scienece, Engineering and Social Sciences
Canterbury Chirst Church University, UK

It is an honour and a privilege to be a special guest at this significant and timely Research Symposium. The challenges of achieving a sustainable digital era are undeniable and pressing. Are organisations ready to embrace sustainable infrastructures and manage the social and cultural changes needed within their work environments? Issues such as energy consumption, carbon footprints, and cybersecurity are more important than ever. I am confident that we will hear critical presentations and innovative theories on how organisations can adapt to this fast-paced and ever-changing era. This symposium will not only offer theoretical insights but also practical solutions to guide us toward a more sustainable digital future.

Furthermore, I am proud to be part of this important collaboration with Saegis Campus, CCCU's esteemed partner for many years. Together, we have facilitated the achievement of Honours degrees and postgraduate qualifications for hundreds of students. Our shared commitment to academic excellence and student success is a testament to the strength and value of our partnership.

Programme of the Inauguration Ceremony

08.55 am   Arrival of Invitees

09.00 am   Lighting of the Oil Lamp / Traditional
Dance

09.10 am   Welcome Note by Ms. Yamuna Fernando,
Symposium Chair

09.20 am   Objective and Scope of Symposium by
Professor Nalaka Jayakody,
Vice Chancellor - Saegis Campus

09.30 am   Introductory Remarks by Senior Professor W.G.D Dharmaratna,
Deputy Vice-Chancellor - Saegis Campus

09.50 am   Launching the Symposium Proceedings
on the Web by Professor Nalaka Jayakody,
Vice Chancellor - Saegis Campus

09.55 am   Address by the Keynote Speaker,
Professor Nalin Abeysekera,
Dean - Faculty of Management Studies,
The Open University of Sri Lanka.

10.15 am   Address by the Guest of Honour,
Dr.Lorna Thomas,
Director - Partnerships,
Canterbury Christ Church University – UK

10.30 am   Vote of Thanks by
Ms. Wasana Manathunga,
Co-Secretary -SURS 2024

10.35 am   National Anthem

10.35 am   Refreshments

11.00 am   Presentations

Panel Presentations and Discussions

11.00 HRS.   SELECTION OF THE SUITABLE ROOFS WITHIN COLOMBO MUNICIPAL COUNCIL FOR INSTALLATION OF SOLAR PV SYSTEMS USING GEOGRAPHIC INFORMATION SYSTEM AND REMOTE SENSING TECHNOLOGY BASED ON ANALYTICAL HIERARCHY PROCESS APPROACH
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PERERA, S.R.

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12.15 HRS.   EFFECTIVENESS OF ECONOMIC FACTORS ON BUSINESS RECOVERY DURING THE COVID-19 PANDEMIC AT MERCANTILE INVESTMENT AND FINANCE PLC
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11.25 HRS.   EFFECTS OF WEAK INTERNET CONNECTIVITY ON THE DEVELOPMENT OF IT SECTOR IN SRI LANKA
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11.50 HRS.   STRENGTHENING CYBERSECURITY: TACKLING PHISHING SCAMS IN SRI LANKA
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12.15 HRS.   THE IMPACT OF INFORMATION TECHNOLOGY ON HUMAN FAMILY RELATIONSHIPS
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13.30 HRS.   AWARDING CERTIFICATES

11.00 HRS.   THE IMPORTANCE, CHALLENGES, AND PRACTICAL IMPLICATIONS OF INTERPRETABLE AI IN HEALTHCARE
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12.40 HRS.   AWARDING CERTIFICATES

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13.30 HRS.   AWARDING CERTIFICATES

Abstracts

Business Management and Economics

EFFECTIVENESS OF ECONOMIC FACTORS ON BUSINESS RECOVERY DURING THE COVID-19 PANDEMIC AT MERCANTILE INVESTMENT AND FINANCE PLC.

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The main purpose of this research study is to determine the impact of economic environmental factors on business recovery during the COVID-19 pandemic, with a focus on one of the leading finance companies in Sri Lanka, Mercantile Investments and Finance PLC., Understanding the determinants that influence business recovery is a significant area of interest in academic research. To comply with this aim, four primary hypotheses have been proposed to explain economic factors and business recovery. To attend to the objectives of the study four hypotheses were developed and tested. A survey was conducted to gather primary data by selecting a sample of 50 Mercantile Investment and Finance PLC consumers around the Matara district. The data collected through the questionnaire are analyzed using multiple regression models using SPSS. The findings revealed that several economic dimensions have been impacting the Business Recovery of Mercantile Investment and Finance PLC. Among all dimensions, the factors of inflation, interest rate, personal income, and transportation cost impact the payment feasibility and business recovery at Mercantile Investment and Finance.

Keywords: Business recovery, Business strategy, Loan Repayment, Finance Sector Resilience

IMPACT OF THE GREEN CONCEPT TO THE OPERATIONAL EFFICIENCY OF KEELLS IN TERMS OF PRODUCTIVITY, EFFICIENCY AND COST

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This study investigates the impact of Green Concept to the operational efficiency at Keells in terms of productivity, efficiency and cost. Green Concept is a concept which includes the guidelines and policies which should be followed when producing goods and services in order to minimize the damage cause by the products to the consumers and to ensure the environmental sustainability by minimizing the harm to the environment. In the research the researcher addresses the Green concept initiation of Keells and the possible impacts towards the operational efficiency by using the factors such as consumer purchasing behavior, employee motivation, organizational environment, operational performance. When concerning the data collection method, a questionnaire which was prepared, studied and Self-administrated by the researcher has been provided to the respondents to collect the necessary quantitative data. In order to conduct the research, the researcher has selected a sample of 55 employees of Keells Supermarket by distributing an online questionnaire. Simple random sampling technique which comes under probability sampling has been selected as the sampling technique. The researcher has implemented cross-sectional research. Deductive approach has been used to address the research problem. The researcher utilized the Statistical Package for the Social Sciences (SPSS) for the determination and analysis parts furthermore Microsoft Excel has been utilized for the interpretation of primary data collected from the questionnaire. Reliability of the research data was measured according to Cronbach's alpha, while validity of the research has been measured according to Kaiser−Meyer−Olkin test (KMO) and Bartlett value to test of normality has been measured according to Skewness and Kurtosis all demographic and descriptive data has been analyzed by the researcher using SPSS Software. The findings of this study reveals that there is significant impact of green concept towards the operational efficiency therefore, the researcher concludes that the green Concept implementation has a significant impact on the operational efficiency of Keells in terms of productivity, efficiency and cost.

Keywords: Green Concept, Green Practices, Productivity, Efficiency, Cost

SELECTION OF THE SUITABLE ROOFS WITHIN COLOMBO MUNICIPAL COUNCIL FOR INSTALLATION OF SOLAR PV SYSTEMS USING GEOGRAPHIC INFORMATION SYSTEM AND REMOTE SENSING TECHNOLOGY BASED ON ANALYTICAL HIERARCHY PROCESS APPROACH

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Solar radiation can be the main renewable energy source to generate solar energy, possibly solving Sri Lanka's energy crisis. Installing a solar PV system on the roof is crucial in generating solar energy. This paper primarily aimed to identify the most suitable roofs in public places for the installation of solar PV systems in the Colombo Municipal Council, using Geographic Information System (GIS), Multi-Criteria Decision Making (MCDM) technique, and Remote Sensing (RS). The entire public roof, consisting of 218 roofs, was digitized using downloaded satellite images from Google Earth Pro software. A number of parameters, including roof area, average temperature, and annual electricity consumption, are taken into account by the model. These parameters are weighted using the Analytical Hierarchy Process (AHP), which grouped the model into three categories; "Less suitable" areas had fewer solar PV systems due to smaller roofs, lower temperatures, and higher electricity consumption. "More suitable" areas had a moderate number of installations, indicating better but not optimal conditions. "Most suitable" areas had extensive installations, characterized by larger roofs, higher temperatures, and higher electricity consumption. Sixty-two of the most suitable roofs in public places, covering a total area of 264,911 square feet in dimensions, are shown in the suitability analysis map. Among them, the roofs in Colombo 3, 5, and 7 are extremely significant regarding the installation of solar PV systems to increase the capacity to generate electricity. In conclusion, the software ArcGIS 10.8, Erdas 2014, and QGIS 3.20 have been utilized to determine the suitable roofs for the installation of solar PV systems. This suggests that integrating GIS with the MCDM technique has more potential for achieving the above objective.

Keywords: Geographic Information System, Remote Sensing, Multi-Criteria Decision Making, Analytical Hierarchy Process, Suitable Roofs

AN ANALYSIS ON THE FACTORS AFFECTING CUSTOMER EXPERIENCE IN MOBILE BANKING APPLICATIONS IN WESTERN PROVINCE OF SRILANKA

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The rapid adoption of mobile banking applications among the youth-adult population in Western Province, Sri Lanka, has transformed the financial services landscape. This study investigates the factors influencing customer experience in these applications, focusing on user-centric design, usability, security, awareness, and time-saving features. Employing a quantitative research methodology, data was collected through a structured questionnaire targeting the youth-adult population aged 20-40. Afterwards, through SPSS software the collected data was analysed. Statistical analysis revealed that user-centric design significantly enhances usability and overall satisfaction, emphasizing the importance of intuitive navigation and interface layout. Usability, characterized by efficient task performance, and ease of learning, were found to be critical in driving positive customer experiences in usability, security, awareness, time saving features and user-centric design which is essential for building trust and encouraging frequent usage, significantly enhances the overall satisfaction. And, along with the digital transformation it was identified that security measures, such as two-factor authentication and timely notifications, were essential for building trust and encouraging frequent usage of the mobile banking applications by customers. Further, awareness of the application's features and benefits also played a crucial role in its adoption and utilization. The study highlights the paramount importance of time-saving features within the mobile banking applications, as the youth-adult demographic leads fast-paced lives, necessitating efficient and flexible banking solutions. These findings provide valuable insights for banks and financial institutions aiming to improve mobile banking services, suggesting the implementation of robust security protocols, user-centric innovations, and targeted awareness campaigns. Hence, this research contributes to the broader understanding of digital banking and offers a foundation for future studies aimed at enhancing customer experience in the evolving field of mobile banking.

Keywords: Mobile banking, Customer experience, Youth-adult, Digital transformation

IS A DIGITALLY SUSTAINABLE SRI LANKA FAR FROM 2030: A STUDY ON THE ENVIRONMENTAL IMPACT OF DIGITAL TRANSFORMATION IN SRI LANKA

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Digital transformation is profoundly reshaping the environmental landscape in Sri Lanka, particularly within the IT sector. This study explores the environmental impacts of this transformation through a detailed survey targeting a diverse demographic. The survey reveals that the predominant age group among respondents is 25-34 years (39.1%), with a notable male majority (55.9%) and a substantial representation from the IT sector (63.9%). The educational background of respondents is primarily postgraduate (73.0%), indicating a well-informed population. Findings indicate a high level of awareness regarding digital transformation, with 74.9% of respondents considering themselves knowledgeable. However, significant concerns about its environmental impact are evident, with 25.1% expressing considerable concern and 35.0% recognizing negative effects such as increased electronic waste, higher energy consumption, and an elevated carbon footprint. The survey also highlights scepticism towards the IT industry's environmental efforts, with 66.3% of respondents perceiving a lack of transparency and 62.2% viewing current measures as inadequate. Public awareness campaigns are widely deemed ineffective (80.7%), pointing to the need for improved communication strategies. There is strong support for social media campaigns and educational programs to enhance public awareness and promote sustainability. Overall, this study underscores the necessity for more robust environmental sustainability measures in the IT sector. It emphasizes the importance of increased awareness, transparency, and effective initiatives to mitigate the environmental impacts of digital transformation. These findings offer valuable insights into the challenges and potential strategies for fostering sustainable digital transformation in Sri Lanka.

Keywords: Digital Transformation, Environmental impact, Carbon footprint, Sri Lankan IT industry, Sustainability

Computing and Information System

THE IMPACT OF INFORMATION TECHNOLOGY ON HUMAN FAMILY RELATIONSHIPS

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In an era characterized by rapid advancements in information technology (IT), the dynamics of human family relationships have undergone significant transformations. This research delves into the intricate interplay between IT and familial bonds, aiming to elucidate the underlying mechanisms contributing to the perceived distance within contemporary family structures. Employing a multidisciplinary approach, this study integrates insights from sociology, psychology, and communication studies to provide a comprehensive analysis. Through an exploration of various facets of IT adoption within families, including ubiquitous connectivity, social media usage, and digital communication platforms, this research endeavors to unpack the nuanced implications for interpersonal dynamics. Drawing upon theoretical frameworks such as social exchange theory and communication accommodation theory, it seeks to elucidate how IT-mediated interactions shape the quality and nature of familial connections. Furthermore, this research scrutinizes the role of IT in facilitating both positive and negative outcomes within family relationships. While IT offers unprecedented opportunities for staying connected across geographical boundaries and fostering virtual intimacy, it also introduces novel challenges, such as digital distraction, diminished face-to-face interaction, and the erosion of traditional communication norms. By synthesizing empirical evidence from existing literature alongside qualitative insights gleaned from interviews and surveys, this study aims to provide a nuanced understanding of the complex relationship dynamics influenced by IT. Additionally, it seeks to identify potential strategies and interventions to mitigate the adverse effects of technological intrusion on familial closeness and cohesion. Ultimately, this research contributes to the ongoing discourse surrounding the impact of IT on human relationships, offering valuable insights for policymakers, practitioners, and families alike. Through a nuanced examination of the multifaceted intersections between technology and familial dynamics, it endeavors to inform future initiatives aimed at fostering meaningful connections in an increasingly digitized world.

Keywords: Sociology, Psychology

EFFECTS OF WEAK INTERNET CONNECTIVITY ON THE DEVELOPMENT OF IT SECTOR IN SRI LANKA

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Sri Lanka's IT sector is a critical driver of economic growth and innovation. However, its potential is hampered by weak internet connectivity infrastructure. This mixed methods research investigates how poor internet infrastructure impacts the productivity, competitiveness, and overall development of the IT industry in Sri Lanka. The quantitative component of the study employs a questionnaire survey distributed to a diverse range of IT firms encompassing various sizes and specializations to random sampling of the population through ' R ' analysis tool. The questionnaire will be designed to gather data on key aspects like operational efficiency, downtime, project completion rates, remote working capabilities, and communication with international clients. Statistical analysis will be used to identify correlations between internet connectivity issues and these business operation variables. The qualitative component involves semi-structured interviews with IT professionals through purposive sampling and analyzed through ' Thematic analysis ' tool. We use in HCL and MyBudget companies to gather sample from our IT firm population. This allows for in-depth exploration of the challenges faced due to poor connectivity and potential strategies for mitigation. By combining quantitative and qualitative data, the research aims to provide a more holistic understanding of the impact of poor internet infrastructure on the IT sector. The quantitative data will reveal the extent of the problem, while the qualitative data will provide richer insights into the lived experiences and perspectives of IT professionals. This research is expected to contribute valuable insights for policymakers and industry leaders by highlighting the specific challenges posed by poor internet infrastructure and their impact on the IT sector. The findings can inform strategies for infrastructure development to ensure the long-term sustainability and global competitiveness of Sri Lanka's IT industry.

Keywords: Connectivity Challenges, Internet Connectivity, Internet Infrastructure, Long-Term Competitiveness, Sustainable Productivity

STRENGTHENING CYBERSECURITY: TACKLING PHISHING SCAMS IN SRI LANKA

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In today's internet-dependent society, phishing attacks—where criminals use false emails or texts to obtain personal and financial information—pose a serious threat. Developments in social networking and internet banking bring ease, but they also introduce risks. Phishing scams take advantage of these weaknesses by frequently using phony emails or websites to deceive victims into disclosing important login information. Industry and academics are working together to develop technology solutions in response to the recognition that joint protection against phishing is necessary. To combat phishing attempts, user education is still essential. This research aims to evaluate the current level of awareness regarding phishing attacks among Sri Lankans. By identifying knowledge gaps and exploring user behavior, the study seeks insights into how individuals can better protect themselves. Employing a quantitative research design, the project will utilize a questionnaire distributed to a sample of the Sri Lankan community. Utilizing random sampling techniques will ensure generalizability of the findings to the broader Sri Lankan population. The gathered data will be subjected to statistical analysis techniques in order to spot trends and patterns in the degrees of phishing awareness. It is anticipated that the research's conclusions will offer insightful information on Sri Lankans' present level of phishing awareness. These findings can help with the creation of focused awareness campaigns and educational campaigns that give people the information and abilities they need to recognize and steer clear of phishing scams. Hope to interact with 18-35 aged people to gather information for this.

Keywords: Phishing, Phishing Awareness, Quantitative Research, Random Sampling, Sri Lanka

DETECTING ANTHURIUM LEAF DISEASES IDENTIFICATION USING IMAGE PROCESSING

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This study focuses on the cultivation of tropical decorative plants, particularly anthurium, prized for their striking leaves and enduring flowers, which become prominent cut flowers in contemporary floral arrangements. The success of anthurium growth relies on selecting a suitable growing medium with optimal physical and chemical conditions. Disease poses a significant challenge, with misdiagnosis and insufficient knowledge compounding the issue, as some diseases lack a known cure and must be eradicated promptly. To address disease identification, the study employs deep learning, specifically convolutional neural networks (CNNs), simulating human brain behavior for effective image processing. After training the model with nearly 400 images, the focus is on identifying anthurium leaf diseases, achieving a remarkable test accuracy of 98.44%. The Android Studio mobile app facilitates predictions using the model, integrating mobile cameras and gallery images. By exploring parameters such as epochs, batch size, and learning rate during training, the study identifies optimal configurations. Notably, epochs at 25, batch size at 32, and a learning rate of 0.001 yield the best accuracy. Additional evaluations with separate models, including Resnet-50 and VGG-16 architectures, consistently achieve 100% accuracy, demonstrating the robustness of the system. Presents a powerful tool for successful plant disease detection in anthurium, offering valuable support to farmers in managing healthy plant nurseries. The implemented system, leveraging deep learning techniques, showcases promising results with a focus on practical applications in agricultural settings.

Keywords: Disease detection, Epoch, Image acquisition, Learning rate, Pre-processing

Data Science and AI

THE IMPORTANCE, CHALLENGES, AND PRACTICAL IMPLICATIONS OF INTERPRETABLE AI IN HEALTHCARE

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Artificial Intelligence (AI) has emerged as a transformative force in healthcare, promising improved diagnosis accuracy, personalized treatment plans, and enhanced patient outcomes. However, the lack of interpretability in AI models poses a significant challenge to their seamless integration into clinical practice. This paper addresses this challenge by exploring the importance of interpretable AI models in healthcare, the challenges and the practical implications for clinical decision making. The literature review reveals the critical significance of interpretability in AI models within the healthcare domain. Studies by Pawar et al. (2020), Rai (2019), and Lysaght et al. (2019) highlight the necessity of transparent decision-making processes and methodologies for making AI systems interpretable and explainable. Challenges identified include the subjective nature of Explainable AI (XAI) in medical contexts, the tension between prediction accuracy and explanation, and ethical and governance considerations. Despite these circumstances, interpretable AI models offer promising opportunities in health care. Model–specific and model-agnostic explanations can enhance trust and confidentiality in AI-driven decisions, aiding clinical decision-making and facilitating earlier disease detection. However, education and training for healthcare professionals, seamless integration with existing systems, and adherence to ethical guidelines are required for the successful implementation of AI systems. In conclusion, this paper emphasizes the importance of interpretable AI models for their successful integration into clinical practice. By addressing challenges, leveraging opportunities, and considering practical implications, healthcare stakeholders can harness the full potential of interpretable AI to improve patient outcomes and foster trust between clinicians, patients, and AI systems.

Keywords: Artificial intelligence, Healthcare, Interpretability, Clinical Decision-Making, Ethical Implications

IMPACT AND MITIGATION OF ROOTKITS, DDoS ATTACKS AND DARK WEB THREATS

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The Internet has become a very important part nowadays. Many problems have arisen due to this development. This technology is now used unnecessarily in the world for personal protection, money laundering, data theft etc. DDoS attacks, security impacts using rootkits and use of the dark web without awareness or understanding. The Dark Web is a website that can only be viewed by special software and coding that cannot be viewed by normal browsers. A rootkit is a type of malware designed to gain privileged access to a computer while hiding from the user and the operating system. DDoS attacks flood the network, disrupt its servers, become more complex, and cause significant operational downtime and financial losses. This research focuses on Windows and Linux operating systems and data server tools and examines threats and mitigation practices for non-experts and students learning about them. Using a qualitative research design, workgroups from the cybersecurity industry are selected as a sample, and data for this research is collected through case studies documented by existing news articles, surveys, and interviews. A literature review provides a comprehensive reading of current issues and undesirable practices related to Internet security and hacker behavior. It provides a detailed view of the collected data on rootkits, DDoS attacks, the impact of the Dark Web on personal life, and the impact of hackers on society. This article attempts to provide a structured and comprehensive overview of research on identifying and preventing these effects. Provides a systematic analysis of mitigating these types of attacks, including methods and potential limitations and challenges of existing research.

Keywords: Rootkits, Distributed Denial of Service (DDoS) attacks, Dark Web, Cyber security threats, Mitigations

UTILIZING MACHINE LEARNING IN ASTEROID CLASSIFICATION: COMPREHENSIVE STUDY ON SELECTING THE BEST OVERALL MACHINE LEARNING TECHNIQUES FOR HAZARDOUS ASTEROID CLASSIFICATION

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Machine learning's transformative impact on astronomy is evident in its application to asteroid classification, a critical task for planetary defence. This study explores the efficacy of various machine learning techniques in discerning hazardous asteroids based on their physical and orbital characteristics. Innovative approaches have been employed to train models using a diverse array of features, leading to improved accuracy in classifying asteroids as hazardous or non-hazardous. The integration of physical and orbital data has been pivotal in refining these models for predicting potential threats. Machine learning has facilitated the classification of co-orbital motion, providing insights into the complex gravitational interactions between asteroids and planets. These advancements have enabled the identification of asteroid family members and resonant arguments in three-body resonances. Studies have applied these methods to predict membership within asteroid families using the proper distribution of orbital elements. Another significant contribution is the development of a real-time Near-Earth Asteroid (NEA) discovery pipeline that employs machine learning classifiers to sift through false- positive detections, aiding in the accurate identification of real asteroid streaks. This study evaluates five machine learning models; decision tree, random forest estimator, bagging classifier, tuned decision tree classifier, and tuned bagging classifier using various metrics. These metrics include training and testing accuracy, recall, precision, and F1 scores. Both generic and tuned versions of these models were assessed to determine the best overall model for classifying asteroids as hazardous or non-hazardous. The models' performance was measured through their ability to accurately classify asteroids, with the best performance identified through comprehensive evaluation. This study aims to highlight not only the most effective models but also the key characteristics that indicate whether an asteroid is hazardous or not.

Keywords: Machine Learning, Asteroid Classification, Astronomy, Multi Model Analysis, Classification

IMPACT AND THREATS OF JAILBREAKING ARTIFICIAL INTELLIGENCE (AI) FOR STUDENTS

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Artificial intelligence (AI) is everywhere today and it is transforming various aspects of our lives. However, as a side effect, new security issues such as "jailbreaking" AI are now emerging. Jailbreaking are techniques that bypass or disable limitations imposed on AI by developers. This research grant focuses on using tools like ChatGPT and examines the impact and threats and practices of Jailbreaking AI for students. Using a qualitative research design, students studying information technology at Saegis University are selected as a sample of the population, and data for this research is collected through case studies documented by existing news articles, surveys, and interviews. A literature review provides a comprehensive reading of current issues and trends related to AI safety and student behavior. Jailbreaking AI provides a comprehensive view of the data collected on the impact students can have on their academic and personal lives, and the impact students have on society. This research also highlights the need to validate the robustness, usability and security of AI tools used by students.

Keywords: AI Intelligence, Artificial Jailbreaking, AI Safety, Data Privacy, Security Vulnerabilities

Education & Psychology

EXPLORING OPPORTUNITIES AND CHALLENGES FOR SUSTAINABLE INTEGRATION OF EDUCATIONAL TECHNOLOGY (EdTech) AT SAEGIS UNIVERSITY, SRI LANKA

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In the contemporary landscape of higher education, the integration of Educational Technology (EdTech) has emerged as a pivotal force, promising transformative opportunities alongside formidable challenges. This study provides a comprehensive analysis of the sustainable deployment of EdTech within Saegis University. The research aims to explore the potential benefits, such as enhanced learning outcomes, increased accessibility, and improved institutional efficiency, while critically evaluating challenges like digital equity, pedagogical adaptation, infrastructure readiness, and privacy concerns. Employing a mixed – methods approach, the study combines qualitative and quantitative methodologies, including surveys and interviews, to gather nuanced insights from faculty, students, and administrators. The results indicate significant potential for EdTech to enhance educational experiences and operational efficiency, but also highlight the necessity of addressing digital divides, updating pedagogical practices, and ensuring robust infrastructure and data security. The findings contribute to the theoretical understanding of EdTech integration and offer practical recommendations for fostering a sustainable digital era in education at Saegis University and beyond.

Keywords: Educational Technology, High Education, Sustainability, Digital Equity, Pedagogical Adaptation, Data Privacy

A STUDY ON THE PROVISION OF ACCREDITED VOCATIONAL TRAINING IN YOUTH EDUCATION

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Today, due to a lack of resources, many students in Sri Lanka do not receive a proper education. The main reason for this is the poverty of families within Sri Lanka's economy. Although 13 years of free education are provided to a person in Sri Lanka, according to the 2023 reports, 30% of the ordinary level exam and 37% of the advanced level exam fail. However, the physical resources are not enough to admit all the qualified students to the universities. Therefore, many students abandon their further education and engage in unrecognised jobs. The research methodology is quantitative. The sample consists of 50 O/L and 50 A/L completed students, none selected for university or technical colleges. Data analysis uses Excel to analyse questionnaire responses, sorting students by their education level (O/L, A/L), identifying those who are employed or unemployed, and evaluating participation in vocational training. In light of all these issues, the young people who are employed without further education and who are without a suitable job are referred to a vocational training institute. They are given professional training with proper education, opening the way to a recognised job. By facing these systemic challenges and providing comprehensive support to the students for a quality education, Sri Lanka can work to ensure access for every young person. This will provide them the opportunity to pursue a fulfilling career path. A limitation of this research is that we cannot gather feedback from all students across the island who have completed their Ordinary Level and Advanced Level exams.

Keywords: Economy of Sri Lanka, Education, Recognized Job, School Leavers, Vocational Education

HOW TO ENHANCE PRODUCTIVITY USING TECHNOLOGY IN INTERACTIVE TEACHING AND LEARNING METHODS FOR ONLINE EDUCATION

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The rapid advancement of technology has significantly transformed education, particularly online learning. This research explores enhancing productivity in online education through interactive teaching and learning methods, focusing on leveraging various technological tools and platforms to create engaging, personalized, and efficient learning environments. The study aims to identify best practices and provide actionable recommendations for educators and institutions. Addressing the challenge of maintaining student engagement and productivity, the research emphasizes the need for innovative approaches that effectively utilize technology. We hope to the research methodology includes a comprehensive literature review of existing studies on interactive teaching and learning technologies, as well as case studies of successful implementations. To ensure the accuracy of the research, methodological triangulation will be associated with the statistical analysis of the quantitative data. This study seeks to identify key technological tools and platforms for interactive online education, evaluate their impact on student engagement and productivity, develop best practices for integrating these technologies, and address the challenges associated with their implementation. We believe that this research will provide significant insights for educators and institutions striving to enhance productivity in online education through the implementation of interactive technologies.

Keywords: Engagement, Interactive, Online education, Productivity, Teaching and learning, Technological tools

RELATIONSHIP BETWEEN PERCEIVED STRESS, BURNOUT AND TURNOVER INTENTION AMONG SRI LANKAN VOLUNTEERS

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Volunteering is important for a productive economy and society. Despite Sri Lanka's world-leading volunteer participation rate of 46% (Charities Aid Foundation, 2019), volunteer organizations struggle with turnover intention. When a volunteer quits, it does not only affect the organization but the community as well as a whole. While volunteering offers well-being benefits (Borgonovi, 2008; Greenfield & Marks, 2004), demanding roles can lead to burnout and stress (Thornton & Novak, 2010). Perceived stress and burnout are known to push people out of various roles, but their influence on volunteers remains under-explored. Due to this limited research this study aims to bridge this gap by investigating how perceived stress and burnout are linked to turnover intention among volunteers. Thereby the generated hypothesis for this study was, "there is a significant relationship between perceived stress and turnover intention among volunteers" (H1), "there is a significant relationship between burnout and turnover intention among volunteers" (H2) and "there is a significant relationship between perceived stress and burnout among volunteers" (H3). A quantitative, cross-sectional design was employed to investigate the relationships between perceived stress, burnout, and turnover intention among volunteers in Sri Lanka. Convenience and snowball sampling techniques yielded an initial pool of 248 participants, exceeding the minimum sample size of 46 determined by G*Power software. Following data cleaning, the final sample comprised 128 volunteers of the age range of 19-52 years. Data collection utilized an online survey administered via Qualtrics. Social media platforms such as WhatsApp, Instagram and LinkedIn were used to disseminate an advertisement outlining eligibility criteria. Interested volunteers clicked on a link within the advert to access the informed consent form and online survey instruments, which included a demographic questionnaire, the Perceived Stress Scale (PSS-10), the Oldenburg Burnout Inventory (OLBI), and a turnover intention scale. The Perceived Stress Scale (PSS-10), Oldenburg Burnout Inventory (OLBI) and the turnover intention scale were used to measure perceived stress, burnout and turnover intention respectively. This efficient data collection approach facilitated the investigation of the hypothesized relationships between perceived stress, burnout, and turnover intention within the volunteer population. The IBM-SPSS version 29 was used for data analysis. Participants reported moderate stress levels, high burnout, and moderate negative turnover intention, aligning with previous research on volunteers and employees (Akintola et al., 2013; Allen & Mueller, 2013). When a bivariate Pearson correlation was conducted the results revealed a significant relationship between perceived stress and turnover intention (r_s (126) = 0.28, p = 0.002), a significant relationship between burnout and turnover intention (r_s (126) = 0.50, p < 0.001) and a significant relationship between perceived stress and burnout (r (126) = 0.42, p < 0.001). The study acknowledges limitations. Despite exceeding the target sample size, a significant portion of participants of 48.39%, did not complete the survey, possibly due to its length or the online format (Nayak & Narayan, 2019). In addition, convenience and snowball sampling techniques (Akintola et al., 2013; Devebakan, 2018) were efficient however may limit generalizability (Jager et al., 2017; Parker et al., 2019). In conclusion, this study highlights the interconnectedness of perceived stress, burnout, and turnover intention among volunteers. Volunteer organizations should prioritize creating healthy work environments, conducting regular well-being assessments, and holding awareness sessions to support volunteers' mental health. This will not only enhance volunteer retention but also contribute to the overall success and societal impact of volunteer organizations. Future research could benefit from a mixed-methods approach, incorporating qualitative data to explore additional factors influencing these relationships. Investigating volunteer hours, experience, demographics, and factors like lack of voice or poor volunteer fit (Allen & Meuller, 2013; Scherer et al., 2016) could provide deeper insights and strengthen the generalizability of the findings.

Keywords: burnout, perceived stress, turnover intention, volunteers

THE IMPACT OF SOCIAL MEDIA USAGE ON THE ACADEMIC PERFORMANCE OF UNDERGRADUATES (A STUDY BASED ON PRIVATE UNIVERSITY UNDERGRADUATES IN WESTERN PROVINCE OF SRI LANKA

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This study investigates the relationship between social media utilization and academic performance among private university undergraduates in Sri Lanka's Western Province. As social media platforms redefine communication and information dissemination, concerns arise regarding their potential influence on academic endeavors. While students increasingly integrate social media into their academic pursuits, questions persist about its impact on academic performance. The study used a questionnaire-based survey to examine how often and for what reasons undergraduate students engage with social media. Data were collected from 50 conveniently selected students attending private universities in Sri Lanka's Western Province. Employing a cross-sectional research design, the study analyzed the data using the Statistical Package for the Social Sciences (SPSS). This research uncovers a strong positive correlation between academic achievement and social media engagement among private university students in the region. The findings highlight the prevalent use of platforms like Facebook, Instagram, and WhatsApp for both personal and academic purposes. While some students perceive social media as beneficial for accessing educational resources and fostering collaboration, others note its detrimental effects on concentration and time management. The implications drawn from this research resonate with educators, institutions, and policymakers in Sri Lanka, emphasizing the imperative of promoting responsible social media usage, fostering effective time management skills, and striking a balance between online engagement and academic responsibilities. By shedding light on the complex interplay between social media and academic performance, this study contributes to the ongoing discourse on technology in education and provides valuable insights for addressing the challenges students face in leveraging digital tools for educational purposes.

Keywords: Academic performance, Social media usage, Private university undergraduates

QUEER AND THE RESPECTIVE INTERSECTIONS IN POETRY: A STUDY BASED ON THE SWEET COMPLAINT AND THE MORTICIAN IN SAN FRANCISCO

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Poets are the individuals who transform insignificance into significance. As a result, numerous hidden societal issues are depicted, while raising awareness of people. A case in point is the representation of queer and its intersections in poetry. Hence, this study aims to examine these queer and the respective intersections in the poems The Sweet Complaint by Federico García Lorca and The Mortician in San Francisco by Randall Mann. In order to gather data, a textual analysis was conducted, while paying attention to Judith Butler's gender performativity and Michael Foucault's repressive hypothesis and scientia sexualis. The preliminary results of the study show that heteronormativity, homoeroticism, homophobia, and queer gaze as the respective intersections of queer. In addition, it is evident that The Sweet Complaint as a poetic representation of heteronormativity since it can be analyzed, while employing Judith Butler's gender performativity and Michael Foucault's repressive hypothesis and scientia sexualis. Secondly, the poem The Mortician in San Francisco can be identified as a depiction of homophobia in the United States of America. Hence, it can be analyzed, while focusing on Michael Foucault's repressive hypothesis and scientia sexualis. Thus, this study highlights the role of the selected poems in representing the way poets deal with queer and its intersections.

Keywords: heteronormativity, homophobia, literature, poetry, queer literature

Human Resource Management

THE ROLE OF DIVERSITY IN NEGOTIATION AND CONFLICT RESOLUTION AMONG YOUTH: SPECIAL REFERENCE KUCHCHAWELI DIVISION UNDER THE TRINCOMALEE DISTRICT

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In today's increasingly interconnected world, the ability to negotiate and resolve conflicts effectively is essential, particularly among the youth who are navigating diverse social environments. This research explores the nuanced relationship between diversity and negotiation/conflict resolution strategies among youth populations. Drawing upon a multidisciplinary approach, the study examines how factors such as cultural backgrounds, socio-economic status, and individual identities influence negotiation dynamics and conflict resolution outcomes. The research employs a mixed-methods design, integrating qualitative interviews and quantitative surveys to capture both subjective experiences and objective measures of negotiation effectiveness. Through in-depth interviews with diverse youth groups from various cultural, ethnic, and socio-economic backgrounds, the study uncovers unique negotiation styles, communication patterns, and conflict resolution approaches shaped by participants' diverse identities and lived experiences. Additionally, surveys are administered to assess the impact of diversity-related factors on negotiation attitudes, perceived fairness, and conflict resolution satisfaction among youth cohorts. Preliminary findings indicate that diversity plays a pivotal role in shaping negotiation and conflict resolution processes among youth, with cultural differences, language barriers, and social identities influencing communication strategies, trust-building mechanisms, and collaborative problem-solving approaches. Furthermore, the research identifies key facilitators and barriers to effective negotiation and conflict resolution in diverse youth contexts, informing the development of targeted interventions and educational programs aimed at enhancing cross-cultural understanding, empathy, and conflict management skills. Ultimately, this research contributes to a deeper understanding of the complex interplay between diversity, negotiation, and conflict resolution among youth populations, offering insights to foster inclusive practices, promote social cohesion, and cultivate future leader's adept at navigating diverse and dynamic social landscapes.

Keywords: Conflict Resolution, Diversity, Negotiation, Role, Youth

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON EMPLOYEE PERFORMANCE AT JF&I PACKAGING (PVT) LTD

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JF & I is one of the well-known packaging companies in Sri Lanka and it was initiate as a provider of printing and packaging solutions use automated printing machines & systems. (JF & I Packaging, 2022). SaveMyLeads (2023), states that Artificial Intelligence, or AI, has completely changed the way organization's function. According to, Castka et al., (2020), the development of computer-based intelligence makes the employee's work more proficient and powerful. A study by Brynjolfsson and McAfee (2014) emphasized the need for more empirical research to understand the specific impacts of AI technologies on productivity and job roles. Hence, this study examines the problem of whether there is an impact of Artificial intelligence (AI) on the employee performance at JF&I packaging (Pvt) ltd. The researcher employed a deductive research approach, which involved in hypothesis testing. And while the researcher used quantitative methodology for the study. Target population of this study is 110 employees from staff and management of JF & I Packaging Company, while researcher used convenience sampling technique to identify the 50 employees as the sample. KMO and Bartlett value got 0.726, while conbrach's alpha value also 0.814 which is near to 1. SPSS is used for the data analysis and based on the regression analysis, the independent variable which AI implementation has a significant value (0.001) while it has impact on employee performance based on B value (0.514), which means 51.4%. Therefore, the researcher concludes that the AI implementation has a significant impact on employee performance at JF & I Packaging Company. Researcher recommends that, since the study has significant impact of AI Implementation, organizations could improve their employee performance via automation processes, tools, strategies. And, also instead of limiting it to one company, researchers can conduct more sector-specific studies to understand how AI impacts vary across industries such as healthcare, finance, manufacturing, retail, and services.

Keywords: Artificial Intelligence (AI), Employee Performance

THE IMPACT OF ORGANIZATIONAL CULTURE ON EMPLOYEE PERFORMANCE AFTER COVID-19 PANDEMIC IN HHCO COMPANY

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Purpose - The COVID-19 pandemic has affected manufacturing industries and threatened their operation processes. The current study conducts a systematic review of existing research on the COVID-19 pandemic in terms of business recovery strategies. The purpose of this research is to highlight the main impact of organizational culture on employee performance after the COVID-19 pandemic from the perspective of operations management, as well as the practical adaptation actions. This quantitative study was conducted with employees at the HHCO company, utilizing both primary and secondary data. The data collection technique used was a structured questionnaire combined with a simple random sampling method. The research indicates that organizational structure, risk-taking ability, teamwork, and strategic goal orientation all have a significant positive impact on employee performance. Regression analysis revealed that employee performance was strongly predicted by organizational structure ($\beta = 0.45$, $p < 0.01$), risk-taking ability ($\beta = 0.38$, $p < 0.01$), teamwork ($\beta = 0.42$, $p < 0.01$), and strategic goal orientation ($\beta = 0.47$, $p < 0.01$). These findings imply that improving employee performance, especially in the post-COVID-19 era, requires establishing a supportive organizational structure, promoting risk-taking, teamwork, and alignment of strategic goals. This is in line with the study's goals of identifying critical elements that support operational effectiveness and business recovery. Further, this study highlights the crucial role of organizational culture in enhancing employee performance, particularly the post-COVID-19 period. Practitioners can leverage these insights to develop strategies that promote teamwork, risk-taking, and strategic alignment, thereby improving operational efficiency and productivity. For researchers, the findings provide a basis for further exploration into the impact of organizational culture on performance during future crises periods.

Keywords: Covid 19, HHCO Company, Culture, Employee performance

EXPLORING THE IMPACT OF IT SKILLS ON EMPLOYEE WORK PERFORMANCE: A STUDY BASED ON THE TECHNOLOGY ACCEPTANCE MODEL

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In today's technology-driven workplace, Information Technology (IT) skills are crucial for employee effectiveness. Drawing upon the Technology Acceptance Model (TAM) proposed by Davis (1989), this study investigates how employee perceptions of IT skills, specifically perceived ease of use and perceived usefulness, influence their work performance. The research addresses the problem of understanding the extent to which IT skills impact employee efficiency and productivity, emphasizing the need for organizations to foster these skills. Employing a quantitative approach, data were collected through a survey administered to a random sample of 53 employees using a simple random sampling technique. The sample comprised employees from various departments within the organization, ensuring a diverse representation of roles and IT skill levels. Statistical analysis conducted with SPSS software, using regression analysis to measure the effect of IT skills on work performance, revealed significant positive relationships between perceived ease of use, perceived usefulness, and employee work performance. These findings provide robust support for the TAM framework, suggesting that employees who view IT skills as both user-friendly and valuable in accomplishing tasks experience a demonstrably positive effect on their work performance. The study emphasizes the importance of fostering a clear understanding among employees regarding the value and usability of IT skills. By implementing targeted training programs or knowledge-sharing initiatives, organizations can equip their workforce with the necessary skills and confidence to leverage technology effectively. This, in turn, can lead to a more productive and efficient work environment, ultimately contributing to the organization's success.

Keywords: IT skills, Work performance, Perceived ease of use, Perceived usefulness

THE IMPACT OF NON-FINANCIAL MOTIVATION ON EMPLOYEE COMMITMENT WITH SPECIAL REFERENCE TO BEVERAGES COMPANY IN SRI LANKA

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This research investigates the influence of non-financial motivators on employee commitment at Coca-Cola Company Kaduwela Branch in Sri Lanka, using Self-Determination Theory (SDT) as a conceptual framework. The study specifically focuses on autonomy, competence, and relatedness as key motivators impacting employee motivation and commitment. Hypothesis was built and it elaborates that the main three components of Self-determination theory have a significant impact on employee commitment. A quantitative approach was adopted, utilizing questionnaires and secondary data sources to gather insights. Probability sampling segment was considered as the sampling technique and the researcher chooses samples based on the theory of probability and each member has non-zero probability of being selected. The Analysis was proceeded through the SPSS software. Results from a survey of 100 employees indicate that fostering autonomy, promoting competence through career development, and enhancing relatedness through a positive work environment positively affect employee commitment. However, the research highlights challenges faced by older employees who may require additional recognition and encouragement. This study contributes to understanding the relationship between non-financial motivators and employee commitment within the Sri Lankan context, providing insights for organizational strategies to enhance employee engagement and retention.

Keywords: Self-Determination Theory, Non-Financial motivators, Employee Commitment

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