



International Conference on
**MULTIDISCIPLINARY
RESEARCH AND
PRACTICES**

22nd-23rd November, 2022
Phuket, Thailand

ICMRP-2022



Organized by:

**Institute For Engineering Research and Publication
(IFERP) Thailand Chapter**

In Association with

Rajabhat Maha Sarakham University, Thailand

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IFERP-Explore

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PREFACE

We cordially invite you to attend the International Conference on Multidisciplinary Research and Practices (ICMRP-2022) which will be held as Hybrid Conference on 22nd & 23rd November, 2022. The main objective of this conference is to provide a platform for researchers, students, academicians as well as industrial professionals from all over the world to present their research results and development activities in Research and Practices. This conference will provide opportunities for the delegates to exchange new ideas and experience face to face, to establish business or research relationship and to find global partners for future collaboration.

These proceedings collect the up-to-date, comprehensive and worldwide state-of-art knowledge on cutting edge development of academia as well as industries. All accepted papers were subjected to strict peer-reviewing by a panel of expert referees. The papers have been selected for these proceedings because of their quality and the relevance to the conference. We hope these proceedings will not only provide the readers a broad overview of the latest research results but also will provide the readers a valuable summary and reference in these fields.

The conference is supported by many universities, research institutes and colleges. Many professors played an important role in the successful holding of the conference, so we would like to take this opportunity to express our sincere gratitude and highest respects to them. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. We also would like to express our gratitude to the external reviewers, for providing extra help in the review process, and to the authors for contributing their research result to the conference.

Since September 2022, the Organizing Committees have received more than 90 manuscript papers, and the papers cover all the aspects in Research and Practices. Finally, after review, about 33 papers were included to the proceedings of ICMRP-22.

We would like to extend our appreciation to all participants in the conference for their great contribution to the success of ICMRP-22. We would like to thank the keynote and individual speakers and all participating authors for their hard work and time. We also sincerely appreciate the work by the technical program committee and all reviewers, whose contributions made this conference possible. We would like to extend our thanks to all the referees for their constructive comments on all papers; especially, we would like to thank to organizing committee for their hard work.

ABOUT IFERP

Institute for Engineering Research and Publication (IFERP) is a multidisciplinary professional organization dedicated to Research and development within the field of science, engineering and technology. IFERP is a preponderant body that has brought technical revolution and development of science and technology. The IFERP-forum constitutes of professional experts and overseas technical leaders. There is no stone unturned to strengthen the spheres of science, engineering, and technology.

The Institute provides an excellent scope of research and development to genii and experts operating within the field of engineering by providing monetary aids by that economic constraints will not create a hindrance to the technical growth and analysis development. The institute is supported by its International advisory Board (IAB) that isn't restricted to the landmass rather we've intellects from geographical area to spice up our organization.

IFERP is a forum where innovations & research interest could be supported and developed prioritizing our mutual interest. Our forums & Associates constitutes of Professional leaders, Universities, Organizations & Associations connecting each other with a mission to work as wizards of science for defending the earth. These days IFERP is one among the leading publisher of research papers in its prime quality peer-reviewed journals, continuing and analysis magazine.

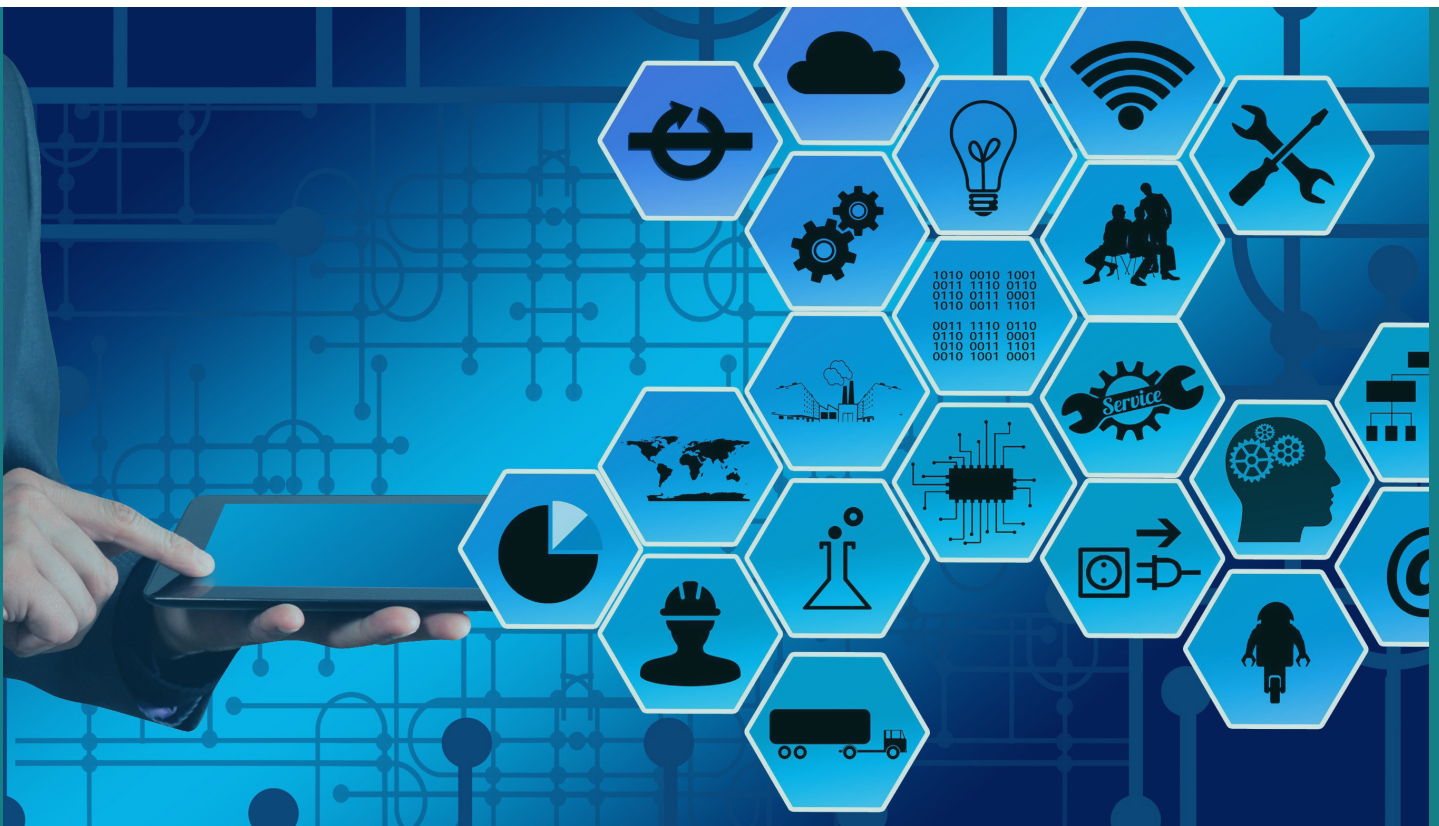


ABOUT RMU

Founded in 1925, Rajabhat Maha Sarakham University is a non-profit public higher-education institution located in the suburban setting of the small city of Maha Sarakham (population range of 50,000-249,999 inhabitants). This institution also has a branch campus in Nong Khai. Officially recognized by the Ministry of Higher Education, Science, Research and Innovation of Thailand, Rajabhat Maha Sarakham University (RMU) is a large (uniRank enrollment range: 10,000-14,999 students) coeducational Thai higher education institution. Rajabhat Maha Sarakham University (RMU) offers courses and programs leading to officially recognized higher education degrees such as pre-bachelor degrees (i.e. certificates, diplomas, associate or foundation), bachelor degrees, master degrees, doctorate degrees in several areas of study. See the uniRank degree levels and areas of study matrix below for further details. This 97 years old Thai higher-education institution has a selective admission policy based on entrance examinations and students' past academic record and grades. The admission rate range is 50-60% making this Thai higher education organization a averagely selective institution. International students are welcome to apply for enrollment. RMU also provides several academic and non-academic facilities and services to students including a library, housing, sports facilities, financial aids and/or scholarships, study abroad and exchange programs, as well as administrative services.



“Cohesiveness between Researchers in Multidisciplinary Research Teams - Their Significance, Challenges to Achieve Cohesiveness, & Increased Productivity that They Result in”



MESSAGE FROM MANAGING DIRECTOR



Mr. A. Siddth Kumar Chhajer

**Managing Director & Founder
Institute for Engineering Research and Publication (IFERP)**

On behalf of IFERP & the organizing Committee, I express my hearty gratitude to the Participants, Keynote Speakers, Delegates, Reviewers and Researchers.

The goal of the ICMRP is to provide knowledge enrichment and innovative technical exchange between international researchers or scholars and practitioners from the academia and industries in various fields of academics. This conference creates solutions in different ways and to share innovative ideas in the field of Science, Management, Engineering, Education & Technology. ICMRP provides a world class stage to the Researchers, Professionals, Scientists, Academicians, and students to engage in very challenging conversations, assess the current body of research and determine knowledge and capability gaps.

ICMRP will explore the new horizons of innovations from distinguished researchers, scientists and eminent authors in academia and industry working for the advancements in Multidisciplinary Research and Practices from all over the world. ICMRP hopes to set the perfect platform for participants to establish careers as successful and globally renowned specialists in various fields of Academics.

Mr. A. Siddth Kumar Chhajer

M MESSAGE FROM CEO

ICMRP-22
Thailand



Mr. Rudra Bhanu Satpathy

**Chief Executive Officer (CEO) & Founder
Institute for Engineering Research and Publication (IFERP)**

IFERP is hosting the International Conference on Multidisciplinary Research and Practices (ICMRP-2022) this year in month of November. The main objective of ICMRP-22 is to grant the amazing opportunity to learn about groundbreaking developments in modern industry, talk through difficult workplace scenarios with peers who experience the same pain points, and experience enormous growth and development as a professional. There will be no shortage of continuous networking opportunities and informational sessions. The sessions serve as an excellent opportunity to soak up information from widely respected experts. Connecting with fellow professionals and sharing the success stories of your firm is an excellent way to build relations and become known as a thought leader.

I express my hearty gratitude to all my Colleagues, Staffs, Professors, Reviewers and Members of organizing committee for their hearty and dedicated support to make this conference successful. I am also thankful to all our delegates for their pain staking effort to make this conference successful.



Mr. Rudra Bhanu Satpathy



Dr. P. Velliangiri

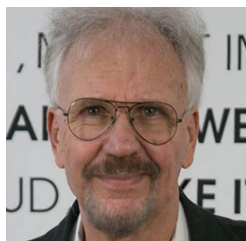
**Emeritus Professor, Department of Tamil,
Osmania University, Hyderabad, India**

Dr. P. Velliangiri is an Emeritus Professor in the Department of Tamil in Osmania University, Hyderabad, India. His Educational Qualifications include PhD in Tamil, PG Dip in Educational Administration, Honorary Educational Degree and much more. He is the proud author of various books like 1. Deiva Naan Mani Maalai, Bharathi Pillai Thamizh, Arunagiri Thiruppugazhil Saiva Siddhantham, Kamaakshi Mummani Maalai, Katurai Then, Kavith Then and Manai Nool.

He has received an award SHIKSHA RATTAN PURASKAR award given by Indian International Friendship Society New delhi. He was also honoured by Vallam (N.A. Dt.) school Teachers Association, for poetry composing(1976). Received his Copper Certificate presented by the Govt of Pondicherry on the occasion of Bharathiar Centenary Celebrations and also they published his poem in their govt. magazine in Feb, 1983. He is also under a stream in Tamil Research.

K EYNOTE SPEAKER

ICMRP-22
Thailand



Mr. Arthur Gogatz

Associate Professor, King Mongkut's Institute of Technology Ladkrabang &
General Director - World Innovation Team Ladkrabang Bangkok, Thailand

Arthur Gogatz is an associate professor at King Mongkut's Institute of Technology Ladkrabang in Bangkok, Thailand, and director of World Innovation Team LLC, an international consulting firm based in California, USA, and Bangkok. He has over 30 years of university teaching experience, mostly at the graduate level. He has over 20 years of consulting, training and coaching experience. His main teaching and research areas are creativity and innovation in business, design thinking, change management and crisis management. He has taught in 24 different countries worldwide and lectured at 45 institutions. His background and education were in the fine and performing arts and in business. He studied in the US and France, and has lived in North America, South America, Europe and Asia. From New York City, he was previously a corporate account executive, creative director, and vice president. He is a frequent keynote speaker at international conferences, especially in Southeast Asia.

KEYNOTE SPEAKER



Dr. Parvez Hayat, IPS

**Independent External Monitor – SBI & BEL &
Academic Advisor – Centre for Climate Change & Disaster Management,
Jamia Millia Islamia, New Delhi, India**

Parvez Hayat, IPS, PhD on “Disaster Management and Law graduate from Delhi University(2005-8) over 30 years of experience in administration, law Enforcement, Ethics in Governance, Vigilance/Compliance, CSR audit works in PSUs-Power grid corporation/THDC, NHPS, PFC, as Chief Vigilance Officer for 5 years, was posted ADGP, BPR&D a think tank of Ministry of Home Affairs/Presented a paper on Resilient Smart Cities – A Global Perspective at International congress JNU New Delhi 2015. Parvez Hayat attended management course on Corporate Ethics at University of Berkley California at Goldman Sach Institute of Public Policy and Management attended a course at ENA Paris, France on Ethics in Corporate Governance, well versed in ethics, anti corruption laws, compliances, procurement, project execution, financial planning, E- procurement, Reverse bidding, Green Energy, green Corridor, Climate Change, smart cities Indicators, vulnerability, performance metrics, e- governance, cyber laws, victim rights, prison reforms, associated with NGOs on Health, Education. A CSR Consultant in ASSOCHAM, Member on National Committee on Ethics, Integrity of CII, Experts on Vigilance/ Compliance and anti corruption, legal issues, CSR, monitoring audit, social audit of social health projects Article published in International journal – India Quarterly of Indian Council of World Affairs on- Smart Cities A Global Perspective et al, Community Policing, Book on Psychology. Parvez Hayat served Government of India in various capacities as part of the prestigious Indian Police Service till I superannuated in July, 2018 as Director General (Training); State Police Hqs. Government of Jharkhand acknowledged with the “President’s Medal for Meritorious Service in 2013. Following is history previous assignments in both State Government and Government of India.

K EYNOTE SPEAKER

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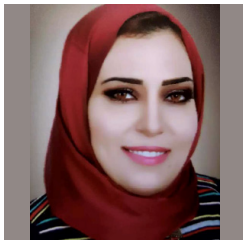
Dr. Maja (Maya) Zelihic

**Dean, Forbes School of Business and Technology
University of Arizona Global Campus, Florida, United States**

Dr. Maja Zelihic is an Dean, Fulbright Specialist, Full Professor, and a Department Chair of the Advanced Management Studies at the Forbes School of Business & Technology, University of Arizona Global Campus. She is the Chair of the FSBT's Board of advisors. She has a Ph. D in Organizational Management, MBA, and MA in Organizational Leadership and Development. She is currently serving her Fulbright tenure having successfully completed one project as a primary investigator and one as a co-investigator. Furthermore, she is a GLOBE research project Country-Co- Investigator, making her contributions in the unique large-scale study of cultural practices, leadership ideals, and interpersonal trust GLOBE currently conducts in 160 countries. She completed her two-year tenure as a Global Dialogue Partner at NAFSA, Association of International Educators, the world's largest and most diverse nonprofit association dedicated to international education and exchange. As a department chair of the Advanced Management Studies, she chairs three programs (MBA, BA in Leadership, and Ph. D in Organizational Development and Leadership) and the Center for Women's Leadership. Outside of FSBT, she serves on the Board of Advisors of the International Fellowship Program in Arbitration and Scientific Assessment, the comprehensive global academic review platform. She also serves as an industry advisory member at the Amity University Novel Communication Lab (AUNCL). She is published in over 20+ peer-reviewed journals, and her research ventures took her to Haiti, Cuba, Mexico, Panama, Jordan, Zambia, the Balkan region, and many other parts of the world. She co-authored a book on Perception, which was released in December 2020. Her chapter in the international research handbook where she shares her experiences of doing international research across the globe has just been published with Francis & Taylor.

K EYNOTE SPEAKER

IFERP- RMU
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Dr. Neyara Radwan

Associate Professor, Quality Assurance Officer, PhD Program,
Business Administration Dept., Faculty of Economics & Administration,
King Abdulaziz University, Jeddah, Saudi Arabia &
Associate Professor, Mechanical Dept., Faculty of Engineering,
Suez Canal University, Egypt.

Dr. Maja Zelihić is an Dean, Fulbright Specialist, Full Professor, and a Department Chair of the Advanced Management Studies at the Forbes School of Business & Technology, University of Arizona Global Campus. She is the Chair of the FSBT's Board of advisors. She has a Ph. D in Organizational Management, MBA, and MA in Organizational Leadership and Development. She is currently serving her Fulbright tenure having successfully completed one project as a primary investigator and one as a co-investigator. Furthermore, she is a GLOBE research project Country-Co- Investigator, making her contributions in the unique large-scale study of cultural practices, leadership ideals, and interpersonal trust GLOBE currently conducts in 160 countries. She completed her two-year tenure as a Global Dialogue Partner at NAFSA, Association of International Educators, the world's largest and most diverse nonprofit association dedicated to international education and exchange. As a department chair of the Advanced Management Studies, she chairs three programs (MBA, BA in Leadership, and Ph. D in Organizational Development and Leadership) and the Center for Women's Leadership. Outside of FSBT, she serves on the Board of Advisors of the International Fellowship Program in Arbitration and Scientific Assessment, the comprehensive global academic review platform. She also serves as an industry advisory member at the Amity University Novel Communication Lab (AUNCL). She is published in over 20+ peer-reviewed journals, and her research ventures took her to Haiti, Cuba, Mexico, Panama, Jordan, Zambia, the Balkan region, and many other parts of the world. She co-authored a book on Perception, which was released in December 2020. Her chapter in the international research handbook where she shares her experiences of doing international research across the globe has just been published with Francis & Taylor.

K EYNOTE SPEAKER

ICMRP-22
Thailand



Dr. Pornchai Jedaman

**Associate Professor,
Rajabhat Mahasarakham University, Maha Sarakham, Thailand**

Dr. Pornchai Jedman is an Associate Professor at Research and Development in Rajabhat Mahasarakham University, Thailand. He has done his Ph.D. in Human Resource Development, University of California at Berkeley, USA. He has Research and Academic Experience in Human resource development (HRD), human resource management (HRM), integration management, leadership and teacher professional development, organizational management and development, educational management. Dr. Pornchai has received Special Award like Excellence in reviewing on Asian Journal of Advance in Research. Excellence in Reviewing on Asian Journal of Education and Social Studies. Reviewer in PubLons. Qualified in Thai Basic Education. Researcher of National Research Council of Thailand.

Workshop on “Psycho-Physical and Cognitive Restructuring Module on Athletes Mental Health” by



Dr. Saeid Motavalli

Department of Psychology, Faculty of Social Sciences and Liberal Arts,
UCSI University, Kuala Lumpur, Malaysia

Obtained the Bachelor of General Psychology at Qazvin Payam Noor University in 2002 and also master of General Psychology at Islamic Azad University Tehran Research & Science Branch in 2006. Hold a doctoral degree in Educational Psychology at Universiti Putra Malaysia (UPM) in 2013. Saeid attached to the department of psychology at Islamic Azad University in Iran from 2014–2019 and then joined the Universiti Pendidikan Sultan Idris as a visiting senior lecturer in the department of psychology and counseling, faculty of human development from 2019–2021, then has joined as a research assistant in Faculty of Educational Studies, Universiti Putra Malaysia, from 2020–2021. Since 2021 has been joined the Department of Psychology, Faculty of Social Sciences and Liberal Arts, UCSI University. He has been a lecturer for bachelor, master and PhD students for more than 9 years and collaborate as a main and co-researcher in national and international researches. Previous to that he has been experienced as a counselor and psychologist in private and governmental clinics such as prison in Iran for more than 18 years. His area of expertise and background is in educational psychology, cognitive psychology, development psychology, learning theories, instructional models and strategies, assessment in education, research methodology, statistics, drug abuse treatment and prevention, individual counseling and couple therapy on the base of RE & CBT, and so on. He has conducted numerous training workshops and seminars related to research, educational psychology, general psychology, study skills training, memory and learning, cognitive restructuring therapy, rational emotive and behavioral therapy, cognitive behavior therapy, resiliency, and parenting styles. He has published several books, papers in journals as well as presented at various conferences as keynote speaker and presenter.

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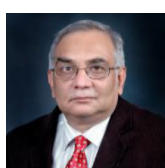
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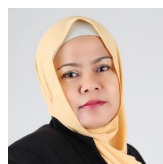
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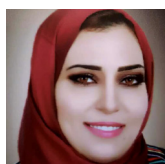
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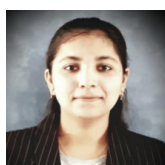
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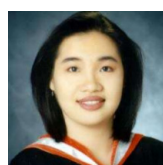
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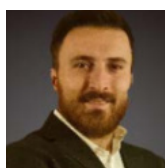
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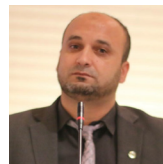
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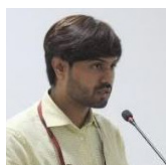
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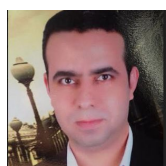
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ABSTRACTS

ICMRP-22

Digital Micro-Entrepreneurship in the Online Rental Market

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Abstract:

Since the beginning of the new millennium, the rapid proliferation of digital technologies has produced major changes in global markets, restructuring competitive environments and reshaping traditional business strategies. In some sectors (e.g., tourism, consulting, personalized services, creative industries, etc.), these new technologies lower the market entry barriers and facilitate the initiation of lucrative activities, even for people with few resources and no formal business knowledge. Taking into account this new phenomenon, the European Commission defines digital entrepreneurship as creating new ventures and transforming existing businesses by developing novel digital technologies and/or novel usage of such technologies. One of the rapidly emerging and developing areas of grassroots digital entrepreneurship is the Sharing Economy. Although many studies have focused on the participation of individual owners of assets in the Sharing Economy, regarding the typology of markets and activities, the profile of digital entrepreneurs and their specific motivations, little is known about (i) the conditions required to initiate entrepreneurial activities in these markets and (ii) the factors determining the entrepreneurial venture's success. This study attempts to investigate these knowledge gaps, using a combination of qualitative and quantitative research methods.

Operation and Maintenance Analysis of Irrigation Network D.I. Oransbari, South Manokwari Regency, West Papua, Indonesia

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Abstract:

Operation and Maintenance of Irrigation Networks is a series of efforts to regulate irrigation water including its disposal and efforts to maintain and secure irrigation networks so that they can always function properly. The purpose of this research is to analyze performance, evaluate the factors that are the priority in handling operations and provide input or solutions to improve the operational performance of D.I. Oransbari in irrigation water services. The method used is Importance Performance Analysis (IPA) to analyze performance against the level of application and the SWOT Method to formulate strategies for improving operations and maintenance. The results of the analysis show that the operational performance of D.I. Oransbari in irrigation water services for the condition of physical infrastructure, operational support facilities and personnel organization (P3A) obtained performance in a good category, plant production in sufficient category and documentation in a very good category. Factors that are prioritized for handling in operation are the function of the drain gate, the function of the building for distribution, the realization of planting in accordance with the planting plan, the amount of paddy fields, additional OP and rehabilitation funding assistance from the Government, P3A knowledge in implementing OP irrigation networks and recording water level weir.

Keywords:

Irrigation, operation, maintenance, IPA, SWOT

Performance Assessment and Statistical Analysis of Waste Glass Powder Incorporated Concrete Mixes

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Abstract:

Globally, we produce over 200 million tons of glass waste annually. The construction industry has huge potential to reuse this glass waste, reducing solid waste and greenhouse emissions. Glass bottles can be used by collecting and crushing into concrete as sand. Incorporating a waste material in the concrete matrix leads to a change in the overall behaviour of the material and, as such, needs thorough analysis before actually being put into use. The present study is focused on the performance assessment of the concrete mixes prepared using waste glass powder as a partial replacement of sand to contribute toward sustainable material generation. This paper attempts to incorporate multiple statistical tools to attain fruitful deductions on the inter-dependencies of the significant constituents of the different concrete mixes considered as the strength of concrete depends on several variables. These variables are water-cement ratio, type and grade of its ingredients, supplementary cementitious material and mixing and curing time. Statistical methods simplify complex data sets and helps in interpretation. Thirty mixes were prepared using different water-cement ratios and waste glass replacement levels to study the compressive strength of the resulting concrete. Based on the results from the different replacement concrete mixes, the significance of using glass waste in concrete for improving the concrete's overall performance has been presented in this study.

A Study on Employability Readiness of Students of Architecture

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Abstract:

Everything in life is impacted by globalisation. It may be found in architecture as well. It is an ongoing trend that undoubtedly picked up speed recently. Architecture which is considered as a field that necessitates the integration of diverse knowledge, including the arts, sciences, environmental awareness, and technology is getting increasingly diversified and demanding. In India, the issue of architecture students' employment has taken on significant importance. Given the greater market expectations and different employment functions, architects require a wide range of talents, from technical competence to soft skills. To satisfy these rising workplace demands, architectural companies and practitioners today hire fresh graduate architects who are suitably prepared with essential employability skills. Employers expect graduates to have the necessary skills and competences to be able to make a major contribution at work, even while academic accomplishment is highly desired but insufficient to guarantee better employment. As a result, the Architecture education institutions are working hard to make their students acquire employable skills; advance their knowledge for better job opportunities. Employers throughout the world are seeking graduates with solid skill sets, or employability skills, to fulfil industry expectations. By making graduates "job ready," dynamic, and sensitive, the development of these employability skills increases graduates' chances of success.

Keywords:

Employability skills, Architecture Education, Employers, Fresh Graduates

Contemplative Architecture And Human Experience: An Exploration

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Abstract:

It has become crucial to live in serene and soothing environments if you want to be healthy and tranquil. Contemplation areas can also guide the architecture to higher spiritual planes. It is possible to characterize the present era as turbulent, uncertain, and changeable. Technical breakthroughs and a desire for sustainability go hand in hand with rapid urbanization and excessive intensification. Traditional architecture frequently had a specific function in mind when it was designed, and future users, uses, or environmental changes were rarely considered. At present, however, it is asserted that the need for construction tractability is critical because to difficulties with affordability, resource depletion, fluctuating demographics, and climate alteration. It is understood that architecture of the twenty-first century needs to be correspondingly flexible and adaptable for a number of reasons, the most crucial of which being the user's mental and spiritual well-being. Our architecture should be made to be disassembled, reconstructed, and reused in order to create contemplative spaces rather than deconstructing buildings to fill landfills. There are several ways that architecture can create these places. Extensive literature reviews in the areas of architecture and spirituality led to the current study. The goal of this study is to examine how living in a healthy environment might be influenced by its physical surrounds and built environment. By offering a place where people are free to ponder or deliberate and feel the existent moment, different environments can be built that help the user feel more connected to them.

Keywords:

Contemplative Architecture, Spiritual Architecture, Human Experience, Mental Health

Stock Price Prediction with Analysis & Mock Investing Web Application

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Abstract:

Thanks to this digital age, now there is nothing beyond our control. Previously we were caught up in all the material or tangible things, but in reality, now we put everything in our pockets. With the global adoption of electronic systems, the stock exchange did not keep itself away from the benefits of virtualization. Virtual stock exchange Trading has proven to be a blessing for investors and to some extent for professionals. The project is a website in which the user can get access to mock investing and prediction of stocks of companies of his/her wish. Mock investing means simulating the real world stock market, which does not need real money at all. i.e. it is done to practice our strategies and test them with real prices of stocks without any chances of the loss. Our website provides not only mock trading but also stock prices prediction and also the stock analysis with buy, sell or hold ratings as well along with some fundamentals using the LSTM model which is a trending application of machine learning in the stock market.

Keywords:

Stock Trend, Stock Prediction, LSTM, Streamlit, Stock Market, Stock Analysis, Machine Learning

Web-Application Development in Transportation Planning Analysis for Urban Planning

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Abstract:

The objectives of this research are to develop a transport application for urban development and to compare this developing program with the licensed program for traffic analysis. The data analysis in this research was imported from two databases, namely the GIS 1:4,000 database and the Engineering Survey Database of the Department of Public Works and Town & Country Planning. The scope of area in this study was the Hua Hin Comprehensive Plan, in Prachuap Khiri Khan Province. The application can estimate the existing and forecast trips on the transport network with a 4-step model method. Also, users can use it free of charge and on various devices via a web browser program. In the existing analysis of current trips, the correlation coefficient with traffic count data is 0.67, while the correlation coefficient for the licensed program for traffic analysis is 0.59. This result shows that the development of this program is successful and can be used to support transportation planners in preparing urban plans well.

Keywords:

Urban plan, Transportation analysis, Web application, Transport application

Study on the Relationships between Project Critical Success Factors (CSFs) and Project Performance of Public Projects in Malaysia

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Abstract:

This study examines the relationships between the public projects Critical Success Factors (CSFs) and project performance in Malaysia. In addition, this study would contribute significantly in the aspect of the CSFs integration with the Malaysia public projects performance which was explained by three dimensions: time, cost and quality. Furthermore, it was shown empirically that the 26 Critical Success Factors which were grouped into six variables were significantly relevant in predicting the project performance. Data collection was conducted through a 10-point scale survey questionnaire and using stratified random sample technique. The completed public projects in Peninsular Malaysia were used as the data resources for this research. The data gathered was screened and followed by descriptive statistics. Further on, the data was analyzed through factor analysis followed by the reliability test. Pearson correlation analysis and multiple regression analysis were applied to identify the relationship between the CSFs and the project performance. Based on this study, it was determined that critical success factors comprised of planning and networking, financial, company background, company experiences, technical equipment, and policy significantly explained the project performances which were comprised of time, cost and quality. Furthermore, an empirical equation was produced as an evidence of the predicting ability of the CSFs on the public projects' performance.

Keywords:

Critical Success Factors, Project Performance, Public Projects, Factor Analysis

Generic Skill Framework in Requirement Analysis of Software Engineering

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Abstract:

Requirement analysis in analysis phase is one of the most critical phase in software engineering. Human skills is crucial in order to implement effective requirement analysis procedures in today's dynamic and rapid changes of business environments. Unfortunately, soft skills components are not included as mandatory elements in the existing framework of software engineering phases. In this thesis, the soft skills components known as generic skills were identified, captured, described and measured and acceptable generic skill score were embedded in the new proposed framework. Method to capture the soft skill components were derived from knowledge management perspective in which it is known as tacit knowledge. The convergence of knowledge management approaches and requirement analysis framework in software engineering are the basis of this research. In order to validate and measure the effectiveness of the proposed framework, IT graduates in from Malaysian universities and their software development employers were participated in the research. Data collection was verified by quantitative and descriptive analysis using SPSS. Based on the analysis and findings, it shows that there is an increased in tacit knowledge score or generic skill value between 36% to 58%. Hopefully the new framework can plays its role for the betterment of software engineering field and reduces cases of software failures due to ill-managed software project requirements in today's challenging world of globalization.

Keywords:

generic skill, personal skill, requirement elicitation, soft skill, software engineering, tacit knowledge

Change and Complexity Institutionalism: The Perspective of Institutional Logics in the Child- Rearing Field

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Abstract:

The objectives of this research are to examine the parental practices of children's families and identify the sets of institutional logic found in the child-rearing field. This was a qualitative study, with data gathered through in-depth interviews. The target group consists of 18 preschool children in the Cha-am District, Phetchaburi Province, Thailand. The ATLAS.ti program was used for content analysis. The interpretation was defined by the codes according to the institutional logic perspective. The results found that each institutional logic consisted of a series of thoughts, beliefs, and practices. Children's families used four kinds of logic to raise their children: professional logic, market logic, community logic, and family logic. The reason for this combination is that institutional logic is complex through decision-making and acting through historical dynamics. Selection and combination as well as adaptation of both consistent and conflicting sets of information have been done to enter the action on an individual level and reflect the set of social practices at present. From an historical perspective, the most important changes were two shifts in professional logic, from midwives to pre-elementary school and then to health service systems. The suggestion is to provide training courses for teachers and parents in kindergartens.

Keywords:

Child-rearing, Child development, Institutional logics, Preschool children

Emotional Intelligence and Its Association with Spiritual Intelligence: A Systematic Review

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Abstract:

Emotional Intelligence (EI) has its definitions based on trait or ability model. Spiritual intelligence has been shown to be associated with corporate emotional intelligence. The aim of this article is to carry out systematic literature review on emotional intelligence and its association with spiritual intelligence. In this, 662 records on emotional intelligence and spiritual intelligence were identified through Web of Science (WoS) and Scopus databases. A total of 768 records remained after 14 records were removed due to duplication. Following exclusion criteria, 662 records were removed, leaving a total of 106 records. Out of this, 99 records were deemed not fit for the research question. A total of 7 records finally were deemed suitable for analyses. These articles focused on the effect of spiritual intelligence on emotional intelligence or association between spiritual intelligence and emotional intelligence. However, there is insufficient evidence of a direct link between spiritual intelligence and emotional intelligence. A more comprehensive study should be carried out to establish the link.

Development of Water Quality System in Residential Area

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Abstract:

Water problems in the residential area happened quite often a few years back until now but remain unsettled, especially regarding low water pressure. The water provider purely needs a significant water monitoring and alert system to overcome this issue. Over the past years, Selangor Water Management Sdn Bhd has received 8,302 water theft complaints that lead to low water pressure and issued 997 request notices. The newspaper also reported that residents of Taman Sri Endah, Sri Petaling are frustrated over low water pressure in their neighborhood affecting about 40 houses. This study was developed to detect the water problem by collecting data on the water flow rate and water existence at the home water meter. This research work used liquid sensors such as water flow and presence sensors, NodeMCU Esp8266, GPS module, IoT platform, and Thingspeak. A Gmail notification email modified to alert the water provider if the system detects any problem regarding the water parameter measured. A google maps was interfaced with the GPS module to locate the affected system's node. Thingspeak used as an online monitoring interface to illustrate graphs for water parameters and save the data in cloud storage. This model communicates well between hardware and software where it detects and uploads the data smoothly from NodeMCU to Thingspeak. The data has been illustrated well with the support of cloud storage to store data of the readings. The system can alert the water provider when it detects a problem with a Gmail notification complete with the location of the affected. This work is more focused on monitoring water quality and awareness of problems in providing water to customers is carried out.

Keywords:

GPS, IoT, NodeMCU, SoC, Thingspeak

A Systematic Review Paper on Need of Smart Home Architecture for Old People

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Abstract:

There are a plethora of clever services and technologies designed to make daily life easier for seniors and lower their stress levels. People over the age of 65 are often pessimistic about technological advancements because of the natural deterioration in their cognitive, motor, and sensory capacities that comes with becoming older. Based on these findings, it is clear that older adults are looking for innovative housing solutions that can meet their physical and mental needs. Future research of smart settings for this population should include fun, happiness, play, and user involvement as significant aspects of technology utilisation. This study's overarching goal is to contribute to the architectural community by offering a comprehensive examination of how intelligent home environments may encourage healthy ageing and provide a pleasant user experience. An evaluation technique was devised that splits the delightful smart environment into four categories: well-ness, independence, acceptability, and design. A survey of architectural journals revealed that most studies on the "smart home" ignore the psychological well-being of its occupants in favour of more tangible benefits like convenience, physical sensation recording, and energy efficiency modelling. For the purpose of attracting and keeping the attention of elders and providing them with rewarding possibilities, it is crucial that smart surroundings be created with their needs in mind. When designing a smart environment with seniors in mind, it's important to take into account their unique cognitive and emotional characteristics as technology advances and becomes more pervasive in everyday life.

Keywords:

smart environment, smart home, aging in place, older adults, pleasurable experience

Acoustic Quality in Open Plan Office Space of Commercial Areas in Context of Dhaka

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Abstract:

Open office spaces(OPO) are becoming a beneficial trend in the commercial sectors due to its flexibility, interactive environment and resource sharing. Even though OPO provides much flexibility of space usage it also means that there is almost no speech privacy and also speech intelligibility might become a concern when multiple work activities are taking place in the same area without any partitions. Whereas, if acoustic solutions are considered regarding speech privacy, speech intelligibility and masking of unwanted sounds, statistics have shown to improve cognitive performance in OPO through an active background masking sound (DeLoach, 2015). In this research paper the author aims to identify current acoustic quality situation through background study on related parameters and site survey based on these parameters. Personal interviews, questionnaire survey along with physical measurements were conducted in an OPO for a general overview of the situation. Through survey and desktop research it is seen that occupants are mostly affected by unwanted sound level in the background. Even though proper design inclusions via Soundscape Approach in the initial phase of designing can reduce these problems related to acoustic quality in OPO, as well as add bonus effects such as physiological and psychological improvement through use of desired level of background sound level, it is still neglected due to lack of awareness and negligence. Even if not included in the design phase, simple design modifications using Soundscape Approach might change the scenario altogether in the blooming sector of OPO in the commercial sector.

Numerical Investigation of Interceptor Influenced on the Step Planing Hull

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Abstract:

Several studies show that step modification support to high acceleration of the planing hull but created excessive drag dan extremely trim at hump region. To make better performance of step hull is to engage integrated with interceptor. Interceptors are situated at the transom stern of planing hull to control the trim angle and minimize wave-induced motions. This research focuses on the impact of the influence caused by step hull with interceptor on the pressure distribution and influenced to drag, heave and trim of the planing hull. The environment was modelled in the two-degree of freedom condition to simulate trim and heave measurement. This research has been analyzed with Finite Volume Method (FVM) based on RANS (Reynolds-Averaged Navier-Stokes) equation using overset mesh. The turbulent K- ϵ and VOF (Volume of Fluid) models are used to model the water and air phases. Grid convergence study has been used to estimate the uncertainties caused by grid-spacing and time-step. The numerical approach was verified with the experimental test of Park et al to ensure the accuracy of the CFD in the bare hull condition. The result of drag, trim and heave were calculated and it has been proved that the added interceptor into step hull are very useful in drag reduction and trim control.

Keywords:

interceptor, numerical simulation, step hull

Urban Heat Island Minimisation through Parametric Modelling

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Abstract:

To grasp the factors that lead to the creation of UHI and identify the appropriate mitigation measures, a variety of methodologies, including simulation and observational methods, have been put forward. The causes of UHI, however, fluctuate depending on the climate or architectural elements of the city. Urban heat island (UHI) detection methods are rapidly evolving on a global scale, and their findings can be trusted regardless of how well they capture the true impact of the phenomena. Significant effects of urban heat island (UHI) on building energy use and outdoor air quality (OAQ). A number of solutions and regulations have been suggested and adapted to localities to address this unwelcome phenomenon. Different models are created to forecast the UHI as well as evaluate the efficacy of such approaches. As a result, general conclusions cannot be drawn from a little amount of monitoring data. Recent advancements in computational tools have allowed for the use of simulation methods to research UHI. These methods, however, are also unable to account for every phenomenon that occurs at the same time as it contributes to the development of UHI.

Aim of this paper to understand better the term Urban heat island (UHI), its causes, types and factors which make it more severe and what are the various possible ways to mitigate it. The primary goal of the paper is to create a parametric model to examine how the Urban Heat Island (UHI) impact responds to shifting land use and geometric properties using the Local Climatic Zone (LCZ) classification system. With the help of Grasshopper, Envi met, and a generic optimization method, a parametric model is created to match the related geometrical and land cover properties, and it is then utilized to determine the forms that produce the maximum and minimum UHI values.

A protocol model approach is proposed as a consequence of the research, allowing the input of numerous factors and producing real-time adaptive results, significantly cutting the time of the optimizing process for UHI minimization. Thus, real-time analysis enables urban designers and planners to investigate various morphology.

Keywords:

Urban Heat Island, Grasshopper, Envi met, Land use, Local climate zone

Early Assessment on Application of Arbuscular Mycorrhizal-Biofertilizer on Germinated Seedling of Oil Palm Tree in the Presence of *Ganoderma Boinense* Inoculum

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Abstract:

The infections of *G. boninense* in the presence of Arbuscular Mycorrhizal fungi (AMF) were investigated through the quantifications of ergosterol level. In this research, AMF identification and spore count on rhizosphere soil were performed before the planting of germinated palm oil. Three major species of spore identified with *Glomus* spp covered around 70.29% of total spore. While, the isolation of *ganoderma* on *Ganoderma* Selective Media (GSM) indicates the successful artificial infection by rubber wood block (RWB) throughout the study period of 8, 12, 16 and 20 wpi. In the meantime, the assessment on mycorrhizal colonization's conducted on 16 to 20 wpi indicates the susceptibility of AMF no colonizing roots with and without *G. boninense* treatment which were found to increase on primary and secondary roots from 53.3% to 70.0% and 81.6 % to 83.81% respectively but decreased on AMG+ *G. boninense* treatment. Overall, ergosterol levels were found to increase along the week of inoculations on *G. boninense* treatment and not detected on AMF treated seedlings. However, at 12 wpi onwards, ergosterol levels were detected to increase on AMF+ *G. boninense* treatment indicating the active growth of *G. boninense* on palm oil seedlings and thus suggesting ergosterol as a possible indicator quantifying *G. boninense* infections on applied AMF seedlings in palm oils.

Social Support for Sustainability of Women's Entrepreneurship

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Abstract:

Empowerment is an essential strategy in increasing the role of women in increasing their potential to be more independent and able to work. Sustainability in entrepreneurship is a state or condition of an organization that has the opportunity to develop and protect its resources and meet the needs that exist in the (industry). The main objective of this research is to determine the social support provided to women in creating businesses. The sample in this study collected 52 respondents, they were women entrepreneurs who were then determined by a simple random sampling approach. The instruments arranged in the questionnaire are used to collect data, by sending a form link to the respondents. Data analysis using the SMART PLS application by making an analysis and testing it with bootstrap to determine the direct and indirect influence of social support on entrepreneurship and business development. Based on data analysis, it is found that social support has a direct effect on women's entrepreneurship. The social support variable that is needed by women as entrepreneurs is a positive variable, where the four indicators used in all of this can be used to see the effect of social support on women entrepreneurs to help them build their businesses.

Exploring Potential Fraudulent Transaction Risk Factors in Internet Finance based on Machine Learning Algorithms

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Abstract:

Purpose: Applying machine learning algorithms to explore the risk factors and potential fraudulent transaction behavior of online financial transaction samples.

Material and Methods: The study sample was generated by PaySim (a financial mobile money simulator for fraud detection) with comprehensive transaction data ($n=6370833$) containing regular customer and fraudulent behavior. Eleven candidate risk factors for online financial transaction samples include transaction method, transaction amount, expenditure account, pre-expenditure balance, post-expenditure balance, collection account, balance before payment, balance after payment, expenditure balance error, systematic fraud, bin size (step/hour). Fraudulent transaction samples including cash withdrawal and transfer methods are selected as the analysis data set for the supervised machine learning algorithm. This study uses three supervised machine learning algorithms to rank the importance of risk factors. Then, we explore the correlation of risk factors to financial transaction samples, extracts effective risk factors, and establishes the prediction model of three machine learning algorithms of logistic regression (LR), adaptive boosting (Adaboost) and random forest (RF). The prediction models are robustly optimized by the grid search method, and then the performance of the model is evaluated through statistical evaluation indicators.

Results: The analysis results found that the top three important risk factors were expenditure balance error, bin size and post-expenditure balance, respectively. Three robust optimization prediction models were established with the selected risk factors, and the AUC evaluation values were as follows: LR: 0.88, Adaboost: 0.92, and RF: 0.99.

Conclusion: This study found that the prediction model of the random forest algorithm using hyperparameter robust optimization has high accuracy, and found that the risk factors of potential fraudulent transaction behavior in online financial transactions are expenditure balance error, bin size (step/hour) and post-expenditure balance.

Keywords:

Machine Learning, Internet Fraud, Random Forest (Rf), Risk Factor, Fraud Detection

Developing A Business Intelligence Visual Scheduling System to Manage Radiotherapy Planning Procedures

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Abstract:

Due to the high complexity of radiotherapy planning procedures and the fact that they have to be performed by medical staff from different units, it is important to obtain real-time dynamic information to minimize the possibility of clinical procedure interruptions resulting in poor flow, and medical staff usually need extra time to perform plan-related statistics and produce departmental productivity reports in addition to clinical work. The existing oncology information system (OIS) can integrate the medical data required for radiation therapy, but it does not provide the right amount of schedule management staff and follow-up productivity analysis to meet the user's treatment plan management needs.

In this study, business intelligence (BI) was applied to the development of a radiotherapy procedure management system to define and simulate the clinical workflow state of a radiotherapy procedure based on existing literature. Microsoft Power BI (Power BI) has a built-in Power Query data processing platform that integrates Python and Structured Query Language (SQL) programming commands, data analysis expressions (DAX), and a database of data from the radiotherapy program. The system was developed to conduct system simulations and semi-structured interviews with relevant clinical informants in relevant fields through a visual interface designed by the Power BI visualization tool, and the System Usability Scale (SUS) was used to collect usability scores and reports from interviewees. The SUS was used to collect usability scores and satisfaction surveys from interviewees.

The visualization dashboard was designed by the Power BI data visualization tool. The visualization one-page information integration dashboard was divided into three pages according to functions: dynamic information tracking of radiotherapy program procedures; departmental performance statistics; and process time-motion study analysis.

This study standardized the radiotherapy procedure workflow according to the literature and established a system for dynamic procedure tracking and related productivity data statistics for scheduling management of the clinical procedure, and saved time by compiling subsequent performance-related productivity reports through automated generation.

Keywords:

Oncology Information System, Business Intelligence, Visualization Dashboard, Data Visualization

Using Unsharp Masking and Local Intensity Region Descriptors to Improve Lung Computed Tomography Image Viewing Performance

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Abstract:

Viewing improvement is an important step in lung computed tomography (CT) image analysis. In this paper, a new viewing improvement method for lung CT images is proposed. Two stages consisted in our proposed method, first, the image was sharpened and deblurred using the unsharp masking method. The second, pre-processed image was enhanced by the local intensity area descriptor, which was first proposed by Tran et al. in 2017. The experiments were conducted on lung CT images from the LIDC-IDRI. For the viewing improvement evaluation, our method was evaluated subjectively and quantitatively by five different measures of enhancement: Absolute mean brightness error, Edge content, Entropy, Peak signal-to-noise ratio, and Tenengrad criterion. The results show that the proposed method outperforms six conventional enhancement methods. We improved the contrast of lung CT images. It was preserved the information of clinical diagnosis. Therefore, it may be possible to improve the diagnostic accuracy of physicians.

Keywords:

lung CT image, local intensity area descriptor, contrast enhancement, unsharp masking

A Non-Invasive Procedure with Logistic Regression and Probit Models for Osteoarthritic Assessment

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Abstract:

This research introduces a novel method which collects vibroarthrographic (VAG) signals via an electronic stethoscope to develop two different models and to be applied to orthopaedic specialty. Those two dependable models are used as criteria-made devices to differentiate osteoarthritic cases from healthy ones and offering useful information to orthopaedic surgeons and patients. The collected VAG signal is transformed from time domain into frequency domain by the fast Fourier transform and gradually integrated along a given bandwidth to find its own relative frequency intensity index. The integral operation of an intensity index adopts six integral intervals such as 5 Hz, 10Hz, 20 Hz, 30 Hz, 40 Hz and 50 Hz to implement calculations step by step and to be plotted in diagrams. The least absolute shrinkage and selection operator (LASSO) will scour the whole frequency bandwidth of a normal VAG signal and compare with an OA one to find the characteristic frequency which possesses a maximum correlation coefficient as criterion point in logistic regression and Probit model. After all of those've done, an assessment needs to be made with some available methods, and they are described as follows: receiver operating characteristic (ROC), mean square error (MSE), root mean square percentage error (RMSPE) and Brier score (BS). The following content describes the outcome of evaluated methods as mentioned above. The score of logistic regression and Probit model on MSE is 0.08 and 0.13; and the score on RMSPE is 2.8% and 3.4%, respectively. Those models score 0.0071 and 0.0072 points on BS, and on ROC is 0.94 and 0.93. In another word, the evaluated score stands for effectiveness and reliability of our well-designed logistic regression and Probit model on osteoarthritis assessment. Both of logistic regression and Probit model are really good at OA assessment, furthermore, logistic regression model is literally more excellent than the other based on assessment score.

Keywords:

vibroarthrographic (VAG), osteoarthritic (OA), LASSO, Logistic Regression, probit

Power and Local Political Interests in Water Resources and Environmental Management of Area the Namsuay River Basin, Nong Khai Province

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Abstract:

The research objectives of this study were to Local political power and interests in water resources and environmental management of area the Namsuay river basin, Nong Khai province, and create a model management of local political power and interests in water resources and environmental management of area the Namsuay river basin, Nong Khai province. This research is qualitative, documentary studies In-depth interviews with 20 key informants and focus group discussions with 21 people. Data were analyzed by using content analysis techniques in context and presenting descriptive. The research results were as follows 1. situation of power and local political interests in the water resources and environmental management of area the Namsuay river basin, has not been successful. Because of the poorly implemented structure of the object, Permanent object solves the problem due to the power and local political interests in accepting the budget for solving the problem. Lack of division, checks, and balances, therefore, the local authorities in charge did not take seriously the solution. The problem of drought and flooding occurs every year. 2. the model of power management and local political interests in water resource and environmental management in the Namsuay River Basin, Nong Khai Province. The findings must be performed in steps, ie. Step first is a basic solution. The second stage, is the integrated structure model, the management model, and the third stage, is the value-added creation model. By requiring the group of powers and local political interests to seriously build awareness of local development.

Keywords:

Power; Interests; Local politics; Water Resources and Environmental Management; Namsuay River Basin, Nong Khai Province

Sangha's Role and Politics Constraints in Thai Society

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Abstract:

Buddhism and politics, especially monks. From past to present "The good that was created. The beauty that has been", coupled with the development of Thai society since the Sukhothai period. The interference of state officials by different religions. Although it is a "minority group, with a lot of power", it sets out a plan of action. This is evident from the ever-violent and widespread religious threats such as unrest in the three southern border provinces, the monks killed Buddhists, and the ruthless, confiscation of the former monk, Phramaha Apichat Punnachantho, ordained to build religious places of different religions in areas where there are no people in the area. Throughout the Buddhist eradication, such as the ban on sacred ceremonies, to move non-Buddhism objects away from the temple, etc. Thailand is a city of Democracy. The right and freedom to choose anything that is not contrary to the good traditions of Thailand. I would not be wrong. However, it must be banned by government officials or removed from the temple. And many more. Many Buddhist monks came out in the political movement and submitted proposals to include Buddhism as a national religion in the Constitution, but failed. It is not worrying what the future will be. But if we study the history of neighboring countries. The uprising of monks nationwide. This is a reasonable concern.

Keywords:

Sangha; Constraints; Politic; Thai Society

Human Capital Development in 21st Century of Managing Sustainability Organization

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Abstract:

An organization to be successful must have talented people it is the driving of work force and creation, including, management and strategic execution for the organization to achieve its goals and sustainability. However, human capital development in the 21st century of managing sustainability organization as the most important to strengthen human resources. The emphasizes are changing thinking process to innovative thinking process, creative thinking, holistic thinking including shifting paradigm and behavioral to be far-sight vision, ability to lead and stimulate new changes. This emphasizes are adjusted to the changing global trends and society accordingly.

Keywords:

Human capital development, the 21st century, managing sustainability organization

Sustainable Community Potential Development Cultural Tourism Management in the Community Identity of Ban Map Klad Khok Krachai Subdistrict Nakhonratchasima Province

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Abstract:

The objectives of this research were to 1) To study the identity of the community in the context of sustainable cultural tourism management. 2) To study the process of cultural tourism management and tourism activities that are appropriate for the community's sustainable development guidelines. 3) Developing sustainable community potential Cultural tourism management in community identity under the community organization network structure. 4) To create and propose policy issues in the development and management of cultural tourism for the community towards sustainability. This research was a Mixed Methods Research between Qualitative Methods using Semi-interview Structured as a tool. and quantitative research (Quantitative Research) using questionnaires. (Questionnaires) is a tool to collect data from the sample of 2 groups: Group 1, those involved in the policy formulation of activities in tourist attractions. both from the public and private sectors of 20 people, and the second group, the villagers of Ban Map Klad, Khok Krachai Subdistrict, Khon Buri District, Nakhon Ratchasima Province, 375 people.

Keywords:

Development; Potential; Community; Sustainable; Identity

Creating Local Identity for Local Silk in Dannok, Bua Yai District, Nakhon Ratchasima Province

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Abstract:

The objective of this research was to determine the origin of Dannok local silk patterns and the elements of Dannok local silk patterns as well as creating unique patterns for indigenous silk from Dannok, Bua Yai District, Nakhon Ratchasima Province to effectively create local identity for local silk using qualitative research methodology. Five groups were selected from silk weaving groups that weave traditional silk in the area in Bua Yai District, Nakhon Ratchasima province as the key informants. These groups consisted of 1) Nong Chaeng Yai sub-district silk weaving group, 2) Nong Bua Sa-ard sub-district silk weaving group, 3) Khun Thong sub-district silk weaving group, 4) Dan Chang sub-district silk weaving group, and 5) Non-Thong Lang sub-district silk weaving group. The tools used in this research were 1) in-depth interviews and 2) focus group. Data were collected with a structured interview and in-depth interviews were conducted with silk weaving groups and village sages in silk, including group interviews people in the area that were involved with the silk process. This was conducted by arranging small group meetings and group discussion with silk weaving groups and locals and non-participant observations for all groups, a total of 55 participants. Data were analyzed by local and overall classification, presentations of the results of people involved in the local silk process, and descriptive research. The results of the research showed that the origin of the local silk patterns derived from the wisdom of ancestors that link to the way of life of the local people and are in harmony with the culture and local traditions with have been passed on from generation to generation. The development of new patterns emerged from the original patterns of ancestors. The composition of Dannok local silk patterns consists of the size of various symbolic silk threads on the silk and natural colors that come from Sappan, Lac and Indigo trees to dye the fabric. At present, chemical colors are used and some parts of the silk use natural colors to create patterns with local identity of Dannok. It was found that the patterns consists of 1) small threads used for weaving must be hand woven small silk threads, 2) the symbol on the silk must have patterns involving rivers, lotus, and ears of rice, and 3) using natural colors reflect the concept of natural resources conservation in which the dyeing skills depend on the patters that reflect the identity of the local silk.

Keywords:

Identity; Local Silk; Mueng Dannok

Phytoparasitic Nematodes associated with the *Coffea Arabica* var. *Typica* cultivation in Quillabamba, Cusco-Peru

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Abstract:

The population of plant-parasitic nematodes associated with coffee (*Coffea arabica* L. var. *Typica*) was evaluated. Soil and root samples were randomly collected from coffee plants of the *Typica* variety in eight randomly selected areas between 1400 and 1866 m asl in Quillabamba, Cusco, Peru. Soil and root samples were processed by the modified Baerman trough method, using 100 g of soil and 1 g of roots. Soil texture was determined using the hydrometer method. For the identification of genera and species of plant-parasitic nematodes in soil and roots, descriptions and taxonomic keys were used. Three genera were identified: *Meloidogyne*, *Pratylenchus*, *Helicotylenchus*, and the groups *Trichodoridae*, *Dorylaimidae*, *Rhabditidae*, *Mononchidae*, and *Criconeematidae*. The phytoparasite with the highest incidence was *Meloidogyne*, with 77.3% in soil and 96% in roots, reaching an average density of 340 nematodes in 100 g of soil and 368 nematodes in 1 g of roots. With regard to their population, according to soil texture, *Meloidogyne* spp. show a certain predominance in soils with a sandy clay loam texture, reaching 90.7%. Statistical modelling shows that the population of the genus *Meloidogyne* decreases at higher altitudes, unlike *Rhabditidae* and *Pratylenchus*, which show a continuous population density at different altitudes and may be the main cause of disease in coffee roots. Four species of plant-parasitic nematodes were identified: *Meloidogyne exigua*, *Pratylenchus coffeae*, *Allotrichodorus longispiculis*, and *Helicotylenchus longicaudatus*.

Keywords:

Phytoparasitic Nematodes, *Meloidogyne*, Quillabamba, La Convención

Treatment of Copper Tailings by Geopolymerization with the Purpose of Use in the Circular Economy: Tacna-Peru Case Study

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Abstract:

Taking into consideration the growth of the nations, it has been demonstrated that copper is a main actor necessary for many electronic elements, but for its production, is essential to remove and process thousands of tons of ore to obtain a small part of this valuable metal, as a consequence there are tons of tailing which is a concern for the society and industry due to the large volume and the polluting elements that can be distributed in the environment.

In this paper it will be explain the treatment of copper tailing through the process of alkaline activation o geopolymerization of the Toquepala mining seat of the Southern Copper mining company in Tacna- Peru, and the use of its mechanical and immobilization properties for its application as a proven engineering material, seeking sustainability and sustainability as a proposal for its use in the circular economy.

Keywords:

Copper tailings, Geopolymerization, Circular Economy, sustainability

Estimations of Elderly's Health Status based on Statistical Models under the Discrete Alpha Power inverse Lomax Distribution

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Abstract:

The purpose of this research was to estimates of elderly's health status based on statistical models under the discrete alpha power inverse Lomax distribution. Due to demographic change, the advanced elderly represent the fastest growing population group in Thailand. Health problems tend to be frequent and increasing with age within this cohort. Health status estimation of elderly is one of the most important aspects of a treatment decision making elderly care. A group of elderly is very heterogeneous according to the health status. Taking medicine and doing housework, the estimations of elderly's health status was related to their ability to perform various activities.

Sufficiency Economy Dimension in Enhancing Potential of Sustainable Organization Management

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Abstract:

Sufficiency Economy for system development in the 21st century a leading the organization management to stable. This paper aims to synthesize and present about of Sufficiency Economy dimension on enhancing potential of sustainable organization management. A qualitative study by documentary, and interview questionnaire with organization leaders. In this way the Sufficiency Economy dimension including foresight, valuing the personnel and continually developing, sincerity towards stakeholders of organization, giving importance to organizational innovation development, efficiency use of organization resources, the integration of technology in management, systematic operation, organization management based on truth, knowledge sharing, and organization cultural on enhancing potential of sustainable organization management.

Keywords:

Sufficiency Economy Dimension, Enhancing Potential, Sustainable Organization Management

Design of Pure Water and Raw Water Rising Well and Pumping Machinery

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Abstract:

A study has been undertaken to suggest measures for the improvement to the water distribution system, which can easily fulfil the demand for water in the city and can lead to development of the city in near future. The function of a water supply intake is to extract and deliver water to the users. Therefore, the design of water intakes requires a series of hydraulic design consideration in order to arrive at a desirable concept that can obtain and deliver the water economically with an acceptably low impact on the environment. The major factors that can affect the selection of a concept and design development for a water intake are water availability, sediment transport, environmental regulations, climatic conditions, constructability, operation and maintenance. Improvement in supply of potable water to zone wise sections of city in accordance with their demand and requirement was carried out. This paper examines these factors and discusses the importance in selecting a suitable design.

Keywords:

Jack Well, Intake Well, Pump House, Population Forecasting, Hydraulic Mode and Design

