



SOCIETY
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Penang, Malaysia

Editors

Rajendra Kumar
Rohit Khokher
R C Singh

The Proceedings of the
7th International Conference

on

Research Innovations

(*i*CRI'22)

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Organized by



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CONTENTS

The Society for Research Development (SRD)	viii
Preface	ix
Abstracts of Keynote Address and Invited Talks	1-4
Keynote Address: <i>Advancing Mobile Payment Research in the Age of Digital Acceleration</i> by Prof. Garry Tan Wei Han (UCSI University, Malaysia)	1
Invited Talk: <i>Artificial Intelligence Towards Smart Engineering Industry</i> by Leong Wai Yie (INTI International University, Malaysia)	1
Invited Talk: <i>Chemistry Thinking for Sustainable Chemistry Education</i> by Corrienna Abdul Talib (Universiti Teknologi Malaysia, Malaysia)	1
Invited Talk: <i>AI Age calculator. Peter Chew Triangle Diagram Calculator</i> by Peter Chew (National Univ. of Malaysia, Malaysia)	2
Invited Talk: <i>Pattern Classification Using Quantum Neural Networks: A Novel Approach in Machine Learning</i> by M. P. Singh (IET, Dr. B R Ambedkar University, India)	2
Invited Talk: <i>Innovative Practices in Mathematics Education</i> by Dr. TOH Tin Lam	2
Invited Talk: <i>The Current Pedagogical Trend in Science Education</i> by Ong Eng Tek (UCSI University, Malaysia)	3
Invited Talk: <i>Preserving UNESCO World Heritage Sites in MINECRAFT Digital Gaming Tool: A Competition-based Learning</i> by Pang Yee Jiea (Kolej Tingkatan Enam Tun Fatimah, Melaka, Malaysia)	3
<i>Augmented Reality in Education</i> by Nelson Cyril (SMK Pondok Upch, Pinang)	4
<i>Reforming education in the pandemic age: Implementing EdTech Technique to cultivate lifelong learners through effective teaching</i> by Gunjan Jain (Westminster International University in Tashkent, Uzbekistan)	4
Abstracts of Papers Presented	5-38
Track: Trends in Science and Technology	
1. <i>Impacts of digital transformation and research trends in data science: technology-enhanced exemplars in Education 4.0 and future direction</i> by Ng Khar Thoe	5
2. <i>Feed forward multilayer neural network models for speech recognition</i> by Pratibha Rashmi	5
3. <i>Hopfield neural network for signature verification on banks using auto-association techniques</i> by Amit Singhal	6
4. <i>Case exemplars in digitally transformed mathematics with suggested research</i> by Masanori Fukui	6
5. <i>Developing programming education using mathematical puzzles and games to enhance students' creative attitudes</i> by Masanori Fukui	7
6. <i>The impact of digital transformation on the implementation of the 12th regional congress search for SEAMEO young scientist (SSYS) 2022</i> by Su Ling Loh	7
7. <i>Empowering conceptual and procedural knowledge development in technology-enhanced environment. innovation challenges and exemplars</i> by Chee Keong Chin	8

8. <i>Integrated cellular and ad hoc relay system – A performance analysis</i> by Rajendra Kumar , Aman Anand, Vishal Jain, Masaneri Fukui	9
9. <i>A performance of convolutional neural network (CNN) through GoogLeNet in prediction of diabetic retinopathy</i> by Nayanbhai Soni	9
10. <i>Integrating IoT with Cloud Computing and Big Data Analytics: Security Perspective</i> by Swati Arya	10
11. <i>NB/IoT: Transitioning from IoT to an Eco-Friendly IoT Approach</i> by Kriti Jaiswal	10
12. <i>Security Architecture and Applications: Blockchain Perspective</i> by Neha Yadav	11
13. <i>Impact of Mindfulness: A perspective of Teachers of DoE</i> by Aashish Jain	11
14. <i>Study on factors affecting electric vehicle (EV) purchase in India</i> by P Neupane and B K Sharma	12
15. <i>Assessing the impact of digital inbound marketing on 2-wheeler buying behaviour in digitally enabled India after the COVID-19 pandemic</i> by Siddhant Agrawal and Arpita Sharma	12
16. <i>A study of digitization and gamification in banking sector</i> by Arka Ghosh and Shilpa Parkhi	13
17. <i>The attitude of Gen Z and Gen Y towards adoption of electric vehicles</i> by Prashansa Gupta, Bhuvanesh Kumar Sharma	13
18. <i>Developing modern day ideation systems: a digitized approach for enhanced workforce engagement using gamification in the Indian textile industry</i> by Shivank Sharma and Sandeep Bhattacharya	14
19. <i>Social media - impact on consumer behavior</i> by Kartik Bansal, Shilpa Parkhi and Vikas Yeddu	14
20. <i>Online retail - impact analysis on customers</i> by Arpit Mishra and Shilpa Parkhi	15
21. <i>Impact of digital marketing and social media on consumers</i> by Poojitha S Nayak and Santhosh Gopalkrishnan	15
22. <i>Opinion of distributors on the smart supply chain of FMCG industry</i> by Arpita Sharma and Nishu Gupta	16
23. <i>Growth and penetration of digital payments in India: regional analysis</i> by R Khatwani, M Mishra and M Bedarkar	16
24. <i>Factors affecting the behavioural intention to consume OTT video streaming services in Indian college student community</i> by N. Sharma and V. V. R. Kumar	17
25. <i>Image comprehension and the emotional response to film editing</i> by Dharmendra Chavan	17
26. <i>Simple way to achieve inner-health with Manache Shlok: a machine learning way</i> by Preeti Mulay, Neha Divekar, Swati Kadlag, Rajeev Raje, Sushama Purandare	18
27. <i>Study of challenges in agile software development practices in non-government organizations in India</i> by Madhup K Gandhi, Chetan Chaudhari and Vishakha Singh	18
28. <i>Digital brand transformers and digital engagement in indian pharmaceutical industry during COVID 19</i> by Noopur Rai and Smita Mehendale	19

Track: Trends in Social Science and Humanities

1. <i>The future of social entrepreneurship in the Philippines</i> by Eduardo R. Lalas	21
2. <i>Costing, planning and control, and strategic management accounting practices of SMEs</i> by Joseph Alfred M. Reyoso	21

3.	<i>Digital marketing platforms used by the private higher education institutions (HEIs) in Laguna, Philippines</i> by Adoree A. Ramos	22
4.	<i>Operational risks and service strategy of small and medium enterprises in Laguna Philippines</i> by Elaine Joy C. Apat	22
5.	<i>The effects of loyalty card acquisition as a tool on the marketing strategy of business enterprises in Laguna: improved customer relation management</i> by Carolyn I. Maghirang, Benilda Jito	23
6.	<i>Consumer behavior in life insurance plan: a Philippine strategic analysis</i> by Lou Anne Pronto	23
7.	<i>Prospects and challenges of the rice industry in the province of laguna towards sustainable marketing and innovations</i> by Ma. Prances Pelobello	24
8.	<i>Globalization of the hotel and leisure industry after the covid-19 pandemic</i> by Lorena H. Garcia	24
9.	<i>The impact of work from home set up on the productivity of the selected employees in the Provincial Capitol of Laguna, Philippines</i> by Alyssa Jillian F. Arjona	25
10.	<i>CLICKBAIT: The influence of sensationalized headlines in e-commerce applications on consumer's purchasing decisions</i> by Ethelyn M. Catamio	25
11.	<i>Adoption of artificial intelligence in the Philippine hotel and leisure industry: An assessment</i> by Marierose P. Valenzuela	26
12.	<i>Ecotourism, social enterprise of the Pandin lake tourist service cooperative, Sto. Angel, San Pablo, Laguna: Assessment and suggested tourism development plan</i> by Patrick James Putungan	26
13.	<i>Level of awareness on green accounting practices of corporations in Lipa City, Philippines</i> by Nelda Rosima	27
14.	<i>Pandemic marketing strategies of selected restaurants: evidence from the province of Laguna, Philippines</i> by Randolph I. Nonato, Dinah Evangeline P. Banayo	27
15.	<i>Adoption of accounting information system software by small and medium enterprises (SMEs) at Santa Cruz, Laguna, Philippines</i> by Karla Pamela Nosa Mangaba	28
16.	<i>Generation Z consumers' green food consumption intention</i> by Randall B. Pasco	28
17.	<i>Maintenance management practices on building and building facilities of the Philippine postal corporation</i> by Reynaldo Cadano	29
18.	<i>The impact of training and development programs on employees' performance: Case of business process outsourcing company in the Philippines</i> by Joyce A. Coronacion	29
19.	<i>Impact of using blended learning platforms delivering education as perceived by the students in the higher education institutions (HEIs) in Santa Cruz, Laguna, Philippines</i> by Adoree A. Ramos	30
20.	<i>Evolving academic culture in the new normal: direction towards quality management, effectiveness of policy implementation and curriculum adaptation in higher education institutions</i> by Louicene Morisey R., Acedillo Karisa L. Tizon	30
21.	<i>Flexible learning environment and the motivation in studying mathematics online among college students</i> by Rose R. Andrade	31
22.	<i>Research competence and productivity of faculty members in LSPU: Bases for mentoring and training program</i> by Delon A. Ching	31

23. <i>Time management as mediator in the quality of asynchronous online sessions and learning engagement of senior high school students</i> by Julie D. Fe Panoy	32
24. <i>Strategies in asynchronous online and learning motivation of college students</i> by Chester Derequito	32
25. <i>Knowledge management assessment: input to a proposed knowledge transfer practice in one state university</i> by Perlas Janice Sandoval	33
26. <i>Organizational support systems and task-technology fit as predictors of HEI faculty performance and productivity</i> by Rommel A. Dela Cruz	33
27. <i>One higher education institution's commitment and learning organizations in producing quality teacher performance</i> by John Vincent C. Aliazas	34
28. <i>Leading instructional coaching culture in schools toward enhanced teaching competence and behaviors of public secondary school teachers</i> by Merry Joy H. Ching	34
29. <i>Self-paced learning strategies and reading comprehension of grade 9 students</i> by Gina V. Moreno	35
30. <i>Health, physical fitness, and skills of first year college: evidence from a Philippine College</i> by Ricardo G. Santiago	35
31. <i>The alternative conception about free fall in preservice elementary students: Rasch Analysis</i> by Subuh Anggoro	36

Track: Trends in Organic Electronics

1. <i>Reinforcing Li-ion batteries with electrochemical impedance spectroscopy</i> by Swati Arya	37
2. <i>A systematic review on 4D printing Technology</i> by Archita Singh	37
3. <i>On the introductory and conceptual establishment of the physical time with spatial coordinates</i> by Prasenjit Debnath	38

The Society for Research Development (SRD)

With the formation of Society for Research Development (SRD), the first event of the Society was organized in Bangkok, Thailand on 29-30 July 2016 as International Conference on Science, Technology, Humanities and Business Management (ICSTHBM-16). The Proceedings of this Conference was published with McGraw Hill Education, India. The Society organized its second international conference on the topic International Conference on Recent Developments in Science, Technology, Humanities and Management (ICRDSTHM-17) on 28-29 April 2017 in Kuala Lumpur, Malaysia. The third international conference organized by society was on the topic International Conference on Recent Trends in Science, Technology, Management and Social Development (ICRTSTMSD-18) in Bali, Indonesia on 04-05 August 2018. The fourth international conference organized by society was on the topic 4th International Conference on Management, Engineering, Science, Social Science and Humanities (*iCon-MESSSH'19*) in Phuket, Thailand on 26-27 July 2019. The fifth international conference organized by society was on the topic 5th International Conference on Management, Engineering, Science, Social Science and Humanities (*iCon-MESSSH'20*) online on 14-15 August 2020. The sixth International Conference on Management, Engineering, Science, Social Science and Humanities (*iCon-MESSSH'21*) online on 09-10 November 2021 in association with 9th International Conference on Science and Mathematics Education (CoSMEd-21 by SEAMEO, RECSAM, Malaysia).

With great success and huge response from the participants, this year the Society is organizing the 7th International Conference on Research Innovations (*iCRI'22*) at SEAMEO, RECSAM, Penang, Malaysia in association with San Pablo College, Philippines on 11-12 November 2022.

The objective of the Society is Scientific, Technical, Managerial, Literary, and Educational in nature. The Society strives to advance the theory, practice, and application of Science, Technology, Social Sciences, Humanities, Education and Management and maintains a high professional standing among its members. The basic purpose of the Society is to bring together academicians and experts from different parts of the country and abroad to exchange the knowledge and ideas at a common platform by organizing National and International Conferences, Seminars and Workshops that unite the Science, Social Sciences, Language, Emerging Technologies, Management, Financial Engineering, Humanities, Literary, Cultural, Education and topics which are not mentioned here for the empowerment of research and development. The Society promotes the original, innovative ideas for betterment of the world and seeks to propagate the results of the interdisciplinary field across research communities and to the general public.

To know more about the activities and forthcoming events of the Society, the readers are advised to visit the official home page of the Society (<http://socrd.org>).

Prof. R. C. Singh

PREFACE

We are very pleased to introduce the proceedings of the 7th International Conference on Research Innovations (iCRI'22) held at SEAMEO, RECSAM, Penang, Malaysia in association with San Pablo College, Philippines dated 11-12 November 2022. This volume of proceedings from the conference provides an opportunity for readers to engage with a selection of refereed abstracts along with invited talks that were presented during iCRI'22.

Out of 120 papers submitted for publication, 62 have been selected in this proceeding after two-tier peer review. The conference received a huge response and the researchers from Philippines, Nigeria, Uzbekistan, India, Indonesia, Malaysia, Taiwan, China, Uzbekistan, Thailand, Japan, etc. who submitted and presented their papers in the conference. Based on the subject matter of the selected papers.

Keynote address was delivered by Prof. (Dr.) Garry Tan Wei Han, UCSI University, Malaysia on topic "*Advancing Mobile Payment Research in the Age of Digital Acceleration*" in the inaugural session of the conference. Best paper awards were given in each and every session judged by concerned Co-Chair and session chairs. The selected presented papers will be published in AIP Conference Proceedings (Scopus), Materials Today Proceedings (Scopus) and Zibeline International Publishing, Malaysia.

One of the unique and valuable dimensions to the iCRI'22 was the way the conference brought educators together from around the globe to discuss ways to serve learners better. All in all, the iCRI'22 was very successful and conducted face to face after Corona pandemic. The deliberations provided a better understanding of the development in science, technology, management and humanities, making it possible for non-experts in a given area to gain insight into new areas. Also, included among the speakers were several young scientists, namely, postdocs and students, who brought new perspectives to their fields. Society for Research Development is continuously striving to join hands with different organizations and universities for academic collaborations. In 2022, SRD society signed Memorandum of Agreement with San Pablo Colleges, Philippines for joint organizing of events for next five years. So, the 2022 conference was organized in association with San Pablo Colleges, Philippines. Dr. Venus Ibarra from San Pablo Colleges, Philippines participated as Co-Chair with 33 participants from Philippines.

The SRD society would like to thank all participants for their contributions to the Conference and for their contributions to this proceeding. We take this opportunity to thank the efforts of all the reviewers whose efforts enabled us to achieve a high scientific standard in this proceeding. We also thank the members of the Technical Committee for extending their help and co-operation from time to time in organizing this conference. The success of this conference means that planning can now proceed with confidence for the next event. We would also like to thank all the Co-Chairs and invited speakers for their support and hard work to make this conference a huge success.

Editors

Part-1

Abstracts: Keynote and Invited Talks

Advancing Mobile Payment Research in the Age of Digital Acceleration

Prof. (Dr.) Garry Tan Wei Han
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Abstract: Traditionally payment has been conducted using credit or debit cards, automated teller machines or electronic fund transfers. The recent advancement of mobile technologies has spurred the development of a new payment system known as mobile payment. Consumers today can pay using mobile devices via PayPal, Alipay, Apple Pay, etc. The adoption rate has proliferated over the last few years. Apart from the adoption studies related to mobile payment, limited literature has been conducted from emerging and new perspectives. Additional theories from various fields, such as tourism, hospitality, sociology, are also limited and mainly, studies are confined to information system theories. The talk will provide deeper insights into some of the mobile payment research from new and emerging perspectives. It is hoped that this sharing will help to set a new research direction for scholars and practitioners by exploring the unexplored horizon of mobile payment.

Keywords: mobile payment, mobile technologies, information system, data security, e-commerce.

Artificial Intelligence Towards Smart Engineering Industry

IR Prof. Leong Wai Yie
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Abstract: Intelligent manufacturing is critical as the world enters a new phase of industrialization (Industry 4.0 or the Fourth Industrial Revolution). Industry 4.0 refers to industrial transformation supported by smart manufacturing and data sharing, high-level factory automation and Internet of Things applications. Artificial intelligence and smart manufacturing have also become essential research areas of engineering and technology. Researchers from various industries are currently working to develop the next generation of intelligent smart manufacturing applications. Applying advanced artificial intelligence technology can accelerate the intelligent manufacturing revolution. In order to build competitive advantage, keep up with the trend of Industry 4.0, and attract and screen high-quality contributions on intelligent manufacturing, we would share on the advanced technology of artificial intelligence for smart manufacturing.

Keywords: Industry 4.0, automation, IoT, Artificial intelligence, smart manufacturing

Chemistry Thinking for Sustainable Chemistry Education

Dr. Corrienna Abdul Talib
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Abstract: Scientific reasoning skills is a life skill that helps to solve problems creatively and deductively. However, it is a skill that is complex and often difficult for students. As a result, most students were at the concrete operational level. Having this kind of situation chemistry thinking is introduced to promote interest and cognitive development among them. Through chemistry thinking, students are challenged to holistically understand the scientific process. Chemistry thinking is initiated to interactively transform conventional teaching and learning into effective driving questions task via project-based learning technique that related to daily life experience. The questions will drive students to discuss, inquire, and investigate the topic. It should push them toward a production or solution. In the process of investigating the question and sharing their answers, students learn important content and skills. By using driving questions for project-based learning game technique through chemistry thinking, students are said to be actively immersed in an experience and promote reasoning skills as well as strengthening the concept learned. In the nutshell, the study aims to teach students to be able to contribute to solving problems for sustainable chemistry education in the future to meet the country dreams to create and to cater the growing demand for talent in a changing digital world through the education system.

Keywords: scientific process, cognitive development, project-based learning, sustainable chemistry education

AI Age calculator. Peter Chew Triangle Diagram Calculator

Peter Chew
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Abstract: Covid-19 has spread globally. when the Covid-19 pandemic occurs, schools must be closed or partially opened, which affects teaching and learning. Educational innovations to deal with epidemics such as Covid-19 and other urgent epidemics are very important. Because some areas of mathematics are still incomplete today, this makes current technical tools such as online calculators Wolfram Alfa and Symbolab unable to direct solve certain Solution of triangle problems. This study also presents some incomplete and incorrect answers from Wolfram Alfa, Symbolab, and MathPortal as of July 7, 2022, to prevent misuse by students. This will cause students to reduce their interest in using today's technological tools and hinder the promotion of effective mathematics learning. In order to solve the above problems, I applied my new discovery, apply Peter chew Rule and Peter Chew triangle Diagram to Peter Chew triangle Diagram Calculator. Apply Peter Chew Triangle Diagram to Peter Chew triangle Diagram Calculator enable the calculator can guide students to solve all solution of triangle problems directly, easily and accurately by a single rule. This will increase students interest in using Peter Chew triangle diagram calculator and increase the promotion of effective mathematics learning. When the future epidemics such as Covid-19 occur in the future, it can effectively help mathematics teaching, especially for students studying at home.

Keywords: Covid-19, triangle problems, effective mathematics learning, online learning.

Pattern Classification Using Quantum Neural Networks: A Novel Approach in Machine learning

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DR. BR Ambedkar University, Agra (U. P.) (India)
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Abstract: There are various methods have been proposed for Pattern classifications with quantum neural networks. Mostly these methods are employing the Grover's iteration on Bell's MES in two-qubit system. Further has been demonstrated that for any pattern classification in a two-qubit system the maximally entangled states of Singh-Rajput eigen basis provide the most suitable choice of search states and in no case any of Bell's states is suitable for such pattern classifications. Here in this present work, the quantum perceptron architecture is employed which incorporates entanglement of weights and states both for producing the required pattern classification. The quantum perceptron learning rule is presented to train the network for the given training set and convergence and normalization of weights have been observed. The simulation results show that the proposed quantum perceptron neural network is capable to classify all the kinds of patterns whether the patterns are linearly separable or not.

Keywords: Quantum neural networks, Machine learning, Pattern classification, Quantum information processing, Entanglement.

Innovative Practices in Mathematics Education

Dr. TOH Tin Lam
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Abstract: This talk discusses the trends of innovative practices in mathematics education. There are mainly five innovative practices: innovative practices in (1) teacher education; (2) use of technology; (3) infusion of computational thinking; (4) use of pop culture; and (5) classroom practices. The talk particularly focuses on (4) and (5) with particular reference to the practices in the Singapore mathematics classroom practices.

Keywords: innovative practices, mathematics education, infusion of computational thinking, pop culture

The Current Pedagogical Trends in Science Education

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Abstract: For the past two decades of the 21st Century, four learning skills have been strongly advocated, namely critical thinking, creativity, collaboration, and communication. The advocacy of the 21st Century Learning Skills is not only research-based and research-validated but it is also based on the premise that students who are imbued with these skills would be able to stay competitive in a changing job market. Accordingly, this presentation aims to showcase selected current pedagogical approaches which would inculcate these 21st Century Skills in the teaching and learning process while at the same time, promoting better and more meaningful learning of science among the students.

Keywords: learning skills, critical thinking, pedagogical approaches, 21st Century Skills.

Preserving UNESCO World Heritage Sites in MINECRAFT Digital Gaming Tool: A Competition-based Learning

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As of June 2020, there are a total of 1,121 UNESCO World Heritage Sites, and only 15 percent of the world's cultural heritage is presently preserved in a digitalised format. Once a heritage site is lost, damaged, or destroyed, the recovery process is slow, if at all. Access to cultural heritage locations is essential for societal development and also because it helps to build resilient communities. Thus, the effort in protecting and preserving world heritage in the digital era is crucial, in line with the famous adage: "part of our heritage, pillar of our present, and enabler of our future". The use of Minecraft, a world-simulation video games for world heritage preservation provides the best alternative for humans in safeguarding cultural heritage resources. Based on the evaluation of the effectiveness of video games to motivate, immerse and constitute reality, Minecraft is recognised as one of the most popular tools in constructing the cultural heritage environment. Minecraft, additionally, performs its vital role as a teaching and learning tool which is implemented through worldwide education institutions to deliver digital knowledge and skills effectively. The Minecraft video game shows that nothing, not even war, can destroy worlds built in Minecraft. This digital tool shares the same ideal in mind: to promote the usage of digital media and virtual reality to preserve buildings, especially world heritage sites, such that they can be immortalised. This subsection presents the "Heritage Immortalised: Minecraft Championship" winning projects in the competition-based learning setting. The enthusiastic learners showcase exemplars for 'Sustainable Tourism at UNESCO World Heritage Sites', as one of the focus topics of learning output to achieve Sustainable Development Goal (SDG) 11.4. Through this program, the students also developed higher-order thinking, technological skills and engineering prowess in construction activities apart from learning other subjects such as 'spatial geometry' in Mathematics, visualizing 3D-animation of scientific concepts/processes, computer art application, digital storytelling and project management.

Keywords: Minecraft, cultural heritage higher-order thinking, technological skills, virtual reality.

Augmented Reality in Education

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Abstract: Augmented Reality (AR) has become one of the tools being used by educators in their teaching and learning science. Incorporating AR knowledge with Teachers' Technological, Pedagogical and Content Knowledge (TPACK) may improve teachers' technology use in science classrooms. Many of these AR applications have become readily available on mobile phones to be used in the classroom. However, the lack of validated TPACK in AR (TAR) assessments would be a major impediment in recognizing teachers' ability to incorporate AR into their teaching and learning. In a study, secondary school science teachers were involved in a test that required them to complete the TAR which comprises 45 test items. The performance of the students in TAR was utilized as quantitative data in this study and was analyzed using the Rasch model revealing a number of findings. Thus, based on the results presented, this study hopes to contribute to the literature in the area of TPACK in AR assessment by providing a validated and reliable instrument to be administered to other samples or participants.

Keywords: Augmented Reality, TPACK, Rasch model, quantitative data, teaching and learning.

Reforming education in the pandemic age: Implementing EdTech Technique to cultivate lifelong learners through effective teaching

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Abstract: Lifelong learning is embedded in all spheres of human life, from academics to professionals. Continuously emerging educational tools and technologies are driving the evolution of the educational paradigm; resulting in changes in teaching and learning methodologies. In the present global trend, technology in all its ramifications has been forced to adopt, which has long-term implications for teaching and learning activities. During the pandemic age, classroom teaching turned inclusive as the reformed teaching methodology took place to connect with the learners. Edtech technique is used as SMART teaching to achieve result-oriented education. This presentation discusses the need for creating productive classroom environments in the face of technological advances in a post-global pandemic era to cultivate lifelong learners.

Keywords: Edtech, pandemic, lifelong learner, technology, educational tools, SMART Teaching

Part-2

Abstracts: Trends in Science and Technology

Impacts of Digital Transformation and Research Trends in Data Science: Technology-enhanced Exemplars in Education 4.0 and Future Direction

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Abstract: The advent of technological innovations in digital era changed the landscape of educational settings to be in line with industrial revolution (IR) 4.0. This paper reports part of bigger scale study to showcase impacts of digital transformation with showcase of exemplars and instrument validation processes. Literature review includes exemplary practices in digital transformation and research trends in data science as well as Education 4.0 in the Community of Practice. Mixed-research was implemented involving quantitative and qualitative methods. Quantitative analysis was reported on instrument validation using Rasch Model for 'Motivation towards STREAM Education' (MoToS) as monitoring/evaluation tool for a SEAMEO technology-enhanced knowledge management programme. Qualitative analysis involving 'type 4' multiple-case document analysis with output reflecting sustainability related sub-themes is also illustrated. Cross-case and Exemplary-case analysis were made on participants' output showcasing 'global science and technology innovations' supported by technological tools. Illustrations were made on exemplars that promote sustainable living integrating SEAMEO's Priority Areas (PAs) No.7 and No.5 with suggested future studies towards Education 4.0. Smart Home prototype integrating Internet of Things (IoT) concepts for sustainable living will be illustrated. MoToS was piloted among online participants from the region and beyond. Data analysis revealed that three domains for MoToS with good Cronbach Alpha reliability of 0.98 and difficult items were identified using Rasch Model analysis. Implications and significance were discussed with suggestions for future studies on knowledge management in digitally transformed platforms.

Keywords: Digital transformation, IoT, data science, Rasch Model, Education 4.0.

Feed Forward Multilayer Neural Network Models for Speech Recognition

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Abstract: Various methods have been proposed for the automatic speech recognition system. The main emphasis has been given to the signal or voice classification of individuals. In this paper, we are considering the four prominent neural network architectures namely, Multilayer Feed-Forward Neural Network, Cascade Backpropagation Network, Elman Backpropagation Network and Adaptive Linear Neural Network for the performance evaluation on collected sound samples of ten different people. These networks have been trained using minibatch stochastic gradient descent learning with batch normalization. The feed-forward neural network model has been extended up to the four hidden layers to perform the desired classification of sound samples. The collected samples of the analog form of sound signals are converted into the digital form using the digital signal processing technique. The time & frequency patches of these digital signals have been considered as the training pattern samples. The test pattern sets have also been constructed in the same manner and the performance of these neural network architectures has been measured. The simulation results are exhibiting the better performance of Elman Backpropagation Neural Network over the other architectures.

Keywords: Elman Backpropagation Network, Multilayer Feed-Forward Neural Network, Cascade Backpropagation Network, Adaptive Linear Neural Network, Speech Recognition

Hopfield Neural Network for Signature Verification on Banks using Auto-association Techniques

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Abstract: Associative Hopfield Memory is a very useful form of Artificial Neural Networks. This paper outlines an optimization relaxation approach for signature verification based on the Hopfield neural network (HNN). The standard sample signature of the customer is cross matched with the one supplied on the check. The difference percentage is obtained by calculating the different pixels in both the images. The network topology is built so that each pixel in the difference image is a neuron in the network. Each neuron is categorized by its status, which in turn signifies that if the particular pixel is changed. The network converges to unwavering condition based on the energy function which is derived in experiments. The Hopfield's model allows each node to take on two binary state values (changed/unchanged) for each pixel. The performance of the proposed technique is evaluated by applying it in various binary and gray scale images. This paper contributes in finding an automated scheme for verification of authentic signature on bank check. The derived energy function allows a trade-off between the influence of its neighbourhood and its own criterion. This device is able to recall as well as complete partially specified inputs. The network is trained via a storage prescription that forces stable states to correspond to (local) minima of a network "energy" function.

Keywords: Signature Verification, Image Matching, Energy Minimization, Hopfield Neural Network

Case Exemplars in Digitally Transformed Mathematics with Suggested Research

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Abstract: The advent of digital era resulted in the changing landscape of learning to be inclined to digital transformation. This article reports on the analysis of videos, materials and output of active learning integrating technology in mathematics education as well as the implications of digitally transformed mathematics/physics education to promote thinking skills and transdisciplinary studies. The video content was created based on the workshop output of training sessions related to teaching mathematics/physics with technological tools that was held at SEAMEO RECSAM as well as e-course series conducted online between 2017 to 2021 with FB and Telegram groups created to promote interactive discussions and sharing. Qualitative research incorporating 'Within-Case Analysis' (WCA) and 'Exemplary-Case Analysis' (ECA) was implemented as research design. The first case exemplar reported on the training workshops that included lectures on mathematics education using Mathematica, a mathematical equation processing system, in activities that led to the discovery of novel facts. The videos created based on this content was posted to Facebook and Telegram groups, where registered members could view it at any time. The posted content focused on discovering patterns, creating mathematical formulas from those patterns, and proving the formulas. Analysis of this practice suggests that participation in workshops facilitated by mathematics experts is helpful for the authors' professional development in teaching mathematics through interdisciplinary research that integrates science, technology, engineering, economics, and other disciplines. The second case exemplar reported on two output of e-course series that were conducted as a result of the efforts initiated by educational institutions in response to current trends in digital transformation. Two 'Augmented Reality' (AR) output from Malaysian and Indonesian participants are illustrated with discussions on Mathematical and Physics learning to enhance thinking skills through AR tools such as Blender and Unity.

Keywords: Active learning, Thinking skills, Mathematics/Physics education, Big data, Exemplary case, Multidisciplinary studies, Digital transformation, Augmented Reality (AR).

Developing Programming Education Using Mathematical Puzzles and Games to Enhance Students' Creative Attitudes

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Abstract. This study devised a three stage, step-by-step programming curriculum to develop creative attitudes toward programming among high school students and examine the curriculum's effectiveness. The curriculum comprised: (1) a specific programming exercise, (2) modifying the exercise, and (3) allowing students to choose and create their own programming exercise. Mathematical games and puzzles were used as programming exercises to increase students' interest, allowing them to try programming with problems that were easy to modify. A questionnaire was administered before and after the study to survey students' creative attitudes and interest in programming. The results showed that analytical problem-solving, entrepreneurship, usefulness of programming, and expectation of programming significantly improved. The results indicated that a step-by-step approach using mathematical games and puzzles with well-structured problems can be effective in enhancing creative attitudes and interest in programming. The results also suggest that any student can complete problems when these match programming skills. In addition, this method may be used to enhance basic math and science skills.

Keywords: Mathematical games and puzzles, analytical problem-solving, entrepreneurship, programming

The Impact of Digital Transformation on the Implementation of the 12th Regional Congress Search for SEAMEO Young Scientist (SSYS) 2022

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Abstract: The article illustrates how the impact of digital transformation affected the implementation of the 12th Regional Congress of the 'Search for SEAMEO Young Scientists' (SSYS), an event that was held biennially since 1997 by RECSAM as regional centre for in-service education of Science and Mathematics educators in the SEAMEO region. The mode of implementation evolved from delegates attending the congress on-site or physically, later including blended mode to the most recently conducted 2022 event through fully mode on-line or virtually due to pandemic. The research design involved qualitative study including collection of data through participatory observation, interview and analysis of output using mainly descriptive statistics. In response to the Research Questions (RQs) on how digital transformation affected the administration and participation of the event, the workflow of the implementation of the event was restructured into fully virtual mode with more efforts were made to ensure better Internet connectivity as well as platforms for synchronous and asynchronous activities. The analysis of data revealed 3 main impacts of digital transformation, i.e., the enhanced varieties of tools used and increased number of participation by participants with better self-directed/self-accessed learning that were not experienced in the previous SSYS that were conducted either fully on-site or integrating blended-mode activities as reported. Limitations and implications are discussed with suggestions to continue sharing of exemplary practice as well as future research in line with Sustainable Development Goals No. 4, No. 10 and No.17.

Keywords: Digital transformation, Impact, Science and Technology, Innovation

Empowering Conceptual and Procedural Knowledge Development in Technology-enhanced Environment: Innovation Challenges and Exemplars

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Abstract: Empowering student-centred learning to develop conceptual and procedural knowledge/skills in digitally transformed learning environment has been a major concern of science/social science educational settings. This article aims to espouse challenges faced in digital transformation during pandemic to integrate 'Internet of Everything' and pedagogical approaches in technology-enhanced constructivist environments with case exemplars. Mixed-research multi-method is implemented with findings reported from mixed-mode of analysis on qualitative data collected from interviews, open-ended responses from surveys, observation and documentary analysis. Case exemplars reported through 'multiple-case design' include 'cross-case and within-case analysis' on 5E constructivist model. Smart Home integrating IoT as output of Education 4.0 research initiative, autonomous/project-based learning integrating digital tools and independent laboratory practical. Data were collected from science and social science studies involving building foundation knowledge on economics through an international research-based e-internship programme being implemented during pandemic. 'Cross-case analysis' on national / regional / international programmes revealed that learners' conceptual and procedural knowledge/skills on 'environmental education and economic sustainability' were enhanced through preparing innovative projects integrating transdisciplinary studies. Instrument validation using PLS-SEM will be reported. Two case exemplars were examined through 'within-case analysis'. These include the analysis of a local programme to promote Year 4 (N=33) students' primary science learning with innovative project output using 5E constructivist model as reflected in their increased mean scores of science achievement analysed statistically. In conclusion, technology-enhanced student-centred learning has implications in development of conceptual and procedural knowledge and skills in digitally transformed learning environment. Hence more research should be conducted in future to promote more Science and Technology Innovation using digital tools.

Keywords: Mixed-research multiple case analysis, Digital transformation, IoT, Pandemic, Conceptual / procedural knowledge or skill, Science & Technology Innovation

Integrated Cellular and Ad Hoc Relay System: A Performance Analysis

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Abstract: This paper proposes a new wireless system architecture based on the integration of cellular and modern ad hoc relaying technologies. It can efficiently balance traffic loads and share channel resource between cells by using ad hoc relaying stations to relay traffic from one cell to another dynamically. However, the application demand and allocation could lead to congestion if the network has to maintain such high resources for quality of service (QoS) requirements of the applications. In the proposed system, handoff area and queue are taken into consideration and new and handoff calls are given priority, respectively. The system performance is analysed in terms of the call blocking probability and queuing delay for new call requests and call dropping probability for handoff requests. Numerical illustrations are provided with the help of Successive Overrelaxation Method (SOR). To improve the performance of base station, the trade-off between number of services channel and QoS of base station are considered.

Keywords: Ad Hoc networks, Cellular architecture, Relaying, Markovian model, Integration, Blocking probability, Queuing system modelling.

A performance of Convolutional Neural Network (CNN) through GoogLeNet in prediction of Diabetic Retinopathy (DR)

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Abstract: Diabetic retinopathy is the leading cause of blindness in India and other countries. Millions of people around the world are affected by DR, which causes vision loss and blindness. Detecting diabetes mellitus early plays an essential role in preventing the loss of vision that can result from diabetes mellitus being left untreated for an extended period of time. It is becoming increasingly more important to detect diabetic retinopathy early through automated systems instead of manual screening procedures like fluorescein angiography, optical coherence tomography etc., as it can lead to blindness among patients with uncontrolled diabetes. There are several published studies on machine learning and deep learning-based DR detection systems. In this paper, we explore the basics of advanced AI technologies used in DR analysis and early detection. The purpose of this study is to review DR detection techniques from several angles namely datasets, image pre-processing, techniques, machine learning and deep learning-based approaches and performance measures. As well as presenting the review findings, it also presents the authors' observations. There were numerous public datasets available in the field of DR detection. The Artificial Neural Network proved to be the best classifier over other machine learning methods based on shape, texture, and statistical features for DR detection. The purpose of this study is to propose the Convolutional Neural Network (CNN) through GoogLeNet for betterment based on the previous CNN model. Furthermore, the community of scientists working in the field of automated DR detection techniques, this review provides a comprehensive overview of DR detection techniques.

Keywords: CNN, GoogLeNet, Ophthalmology, Diabetic Retinopathy, Deep learning

Integrating IoT with Cloud Computing and Big Data Analytics: Security Perspective

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Abstract: In recent years, the Internet of Things (IoT) evolving as a ubiquitous computing service, necessitating massive amounts of big data storage and computation. As billions of gigabytes (GB) of data are produced every day in the world, it must be managed effectively. Due to the cloud's distinct characteristics of resource pooling, scalability, on-demand services, and short-range connectivity, the IoT utilizes cloud technology for outsourced data processing and storage. In this study, the authors provide a vision of IoT technology with big data analytics and cloud computing technology. With the fusion of these technologies, the IoT serves as the data source, big data serves as the analytic platform, and cloud computing serves as their shared workspace. In today's cutthroat environment, where enormous, gigantic computing is being done on networked devices ubiquitously, it also generated some critical threats. Here, cloud, big data, and the IoT are instances of advanced computing environments that are taken into account for identifying and analyzing security concerns. Additionally, researchers have presented an outline of these technologies and then highlighted the relationship among these technologies along with security-concern and possible solutions. Researchers precisely integrate the aforementioned technologies to investigate the shared characteristics and comprehend the advantages of their combination. This research elucidates how IoT functionality is enhanced by blending big data with cloud technology and highlights its existing threats and potential solutions.

Keywords: IoT, cloud computing, big data, security issues, ICT.

NB-IoT: Transitioning from IoT to an Eco-Friendly IoT Approach

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Abstract: IoT is a widespread technology that has taken over the contemporary digital environment. In recent years, numerous forms of IoT have become accessible according to their capabilities and uses. This will undoubtedly make lifestyles more productive but at the expense of immense energy usage and a higher carbon footprint. In order to decrease energy consumption, there is a significant need for energy-efficient communication, which necessitates optimum resource availability and managed power levels. IoT devices, on the other hand, have resource limitations, including those related to processing, memory, and power. The Narrowband Internet of Things (NB-IoT) is a 3GPP-standardized mechanism for huge machine-type communications (mMTC). The wide-scale mMTC is intended to use it to give coverage across a significant region. As a result, NB-IoT is among the most appealing low-power wide-area (LPWA) technologies and, is the preferred choice for wide-scale deployments in major developing applications, including those in healthcare, smart city, smart agriculture, retail management, utility management, object tracking, smart grid monitoring, and industrial applications due to its LPWA capabilities. It may also be used for low-power residential projects like tracking pets and smart homes. The authors have outlined the foundational ideas and practical uses of NB-IoT in this paper for large-scale implementations along with issues that act as barriers to NB-IoT's are recognized and explored together with future scope.

Keywords: IoT, Narrowband Internet of Things (NB-IoT), Energy-efficient Communication, Low Power Wide Area (LPWA), Carbon Emissions

Security Architecture and Applications: Blockchain Perspective

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Abstract: Blockchain technology is expanding swiftly and finding uses in virtually every facet of life, not just cryptocurrency. It is a decentralized, incorruptible, and open ledger that secures, verifies, and immutably records transactions between two parties. It's a series of blocks that are connected using hash functions. It has evolved into the most significant technical innovation in history, poised to alter the entire planet. In this paper, the robust security architecture of blockchain is elaborated in great detail with the algorithms and technologies it uses. Due to these security features, blockchain is finding its application in almost all existing businesses. At the conclusion of the study, the researcher offered several novel blockchain applications that may perform most efficiently when utilizing blockchain's security architecture. The usage of blockchain technology in these applications is either in its infancy or has not yet begun.

Keywords: Consensus Mechanism, Cryptographic Hash Function, Digital Signature, Avalanche Effect, Message Hiding

Impact of Mindfulness: A perspective of Teachers of DoE

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Abstract: The department of education (DoE) of the government of NCT of Delhi (GNCT of Delhi) introduced Happiness Curriculum and Entrepreneurship Mindset Curriculum (EMC) in all government schools in 2019 for classes Nursery to VIII, and IX to XII respectively. Both curriculums have a strong component, *Mindfulness*; the state of being conscious or aware of the present moment. This is an ancient technique of meditation that somewhat differs from meditation and was discovered by Gautam Buddha more than 2500 years ago. The sole purpose of this component in both the curriculum is to teach the students to ensure harmony within their inner self, discover their self in the process of learning, and grow their self to achieve sustainable happiness from momentary happiness. To know the impact of mindfulness in students' lives in the offline and online mode of teaching, an online survey was conducted by the State Council of Education Research and Teaching (SCERT), New Delhi among the students, teachers, and parents of DoE. This study presents the analysis with the help of statistical techniques such as mean, median, and mode of the teachers' observations through the questionnaire on the impact of mindfulness on the students' behavior and their learning process. More than 1400 teachers who are teaching approximately 70 thousand students participated in this survey. The insights drawn from this analysis are discussed in detail in the result section of the study which shows the positive and effective impact of mindfulness on students' behavior and their learning process.

Keywords: Mindfulness, Happiness, Students behavior, Learning process, Emotional Balance, Statistics, Data Visualization

Study on Factors Affecting Electric Vehicle (EV) Purchase in India

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Abstract. This paper aims to analyze and compare the psychological and behavioral factors affecting India's electric vehicle purchase for first-time buyers. There have been many studies on factors affecting customer purchase decisions on an electric vehicle as well as a fuel vehicle, but because of rapid change in perception and behavior, new insights and cognizance can be established. This research paper aims to understand the concern of people of CO2 emission and their effort to minimize it using Electric Vehicle. The scope of this paper includes the study of psychological and behavioral changes in a different segment of first-time buyers of Electric vehicles. The findings show affordability of the vehicle, charging infrastructure, and environmental concern as the major priorities for respondents when buying an electric vehicle. Similarly, respondents believe that electric vehicles are a developing trend, a future requirement, and have a bright future for the automobile industry. To achieve this, we will use secondary research to narrow down the factors and then use primary research to further explore the factors.

Keywords: Electric vehicles, consumer perception, EV priorities, customer preference, Expectations of customers

Assessing the Impact of Digital Inbound Marketing on 2-Wheeler Buying Behaviour in Digitally Enabled India after the COVID-19 Pandemic

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Abstract: Digitization has impacted the Indian industry and its consumers alike. Digital and social media marketing provide companies with enormous potential by lowering expenses, increasing brand recognition, and increasing their revenues. With the onset of the post-pandemic world, there is an increased need for a digital medium of communication to reach the end consumer effectively and economically. However, despite the increased digital adoption by individuals from all demographics to connect with brands, the two-wheeler market has lagged in digital impressions. Through my research of the project, it can be said that the preferences of the automobile customers are very different for different demographic distribution and depends on the age, jobs, etc., of the potential customer. This study aims to critically assess the impact of inbound marketing on the consumer buying behaviour of two-wheelers in India through non-interruptive, pull, and client-centric marketing techniques. Furthermore, identifying limitations in the current processes outlines the gaps in the digital buying journey and the development of proposition and strategy to target customers with personalized content at different steps to capture the pulse of the buyers.

Keywords: Digital Marketing, Inbound marketing, SEO, Social networks, Consumer Behaviour

A Study of Digitization and Gamification in Banking Sector

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Abstract: Banking is moving towards digitization at an extremely fast pace. The pandemic has further fastened this process, resulting in higher digital adoption of banking services. Globally, banks are providing integrated and multi-dimensional services through virtual platforms and are also bringing in newer features like gamification to provide customers with an interactive and engaging platform, which in turn enhances the customer experience. The demand for more ease in banking, better convenience and better customer experience can be leveraged by Indian banks who can expand the range of their digital services and include gamification to provide an interactive and engaging experience. With the up rise of digital banks and FinTech's, traditional banks need to compete against both traditional and digital banks to both retain and increase their market share. The objective of the research is to study how digitization and gamification can provide traditional banks with a competitive advantage over others, and also to understand which digital benefits and features are most preferred by Indian banking customers

Keywords: Banking, Digitization, Gamification, Customer Experience, Convenience

The Attitude of Gen Z and Gen Y Towards Adoption of Electric Vehicles

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Abstract: The adoption of Electric vehicles (EVs) is at a nascent stage in India. Given the pressure on resources exerted by petrol or diesel-run vehicles, electric vehicles are the need of the hour. This research aims to understand the attitude of Generation Y and Generation Z towards the adoption of electric vehicles in the two-wheeler segment. The age group selected for the research is 18-40 years. The exploration depends on the tri-part mentality model given by Rosenberg and Hovland in 1960. With the end goal of the exploration, both essential and optional information was gathered. Information was gathered through center gathering conversations and meetings to see how the two ages see electronic vehicles. The existing literature on the topic and analysis of data related to the same in the public domain forms the basis of the secondary research. The environmental concern of these generations makes them likely to adopt the technology, whereas other factors like cost, lack of infrastructure, and lack of experience may hinder the adoption.

Keywords: Electric Vehicles, India, Gen Z, Gen Y, Tri component Attitude model, Automobile, Two wheelers

Developing Modern Day Ideation Systems: ADigitized Approach for Enhanced Workforce Engagement Using Gamification in the Indian Textile Industry

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Abstract: One of the significant challenges faced by modern-day firms has been the need for an integrated framework that improves business performance through ideas provided by the employees. This study uses a digitized approach to develop a flexible, scalable, and efficient ideation system for business process/product improvement. The aim is to inspire employees to provide quality ideas and facilitate innovation and enhanced profits for their firms. The focus has been on the Indian textile industry for analyzing the requirements and perception of workers for ideal ideation systems. A powerful concept may alter a company by assuring multifaceted growth. Every worker must get the chance to present their views to upper management and external. Extensive primary and secondary research were done to know-how companies in textiles and other industries implement the ideas suggested by their employees. A multi-level point-based framework involving gamified leader boards was developed to link the ideation system with adequate rewards and varying forms of recognition for the workers.

Keywords: Digitization, Gamification, Ideation Systems, Rewards, Recognition, Workforce Engagement

Social Media - Impact on Consumer Behavior

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Abstract: Social Media in numerous viewpoints has been evolving industry. Since we are in the advanced age, the web and web-based media hugely affect buyers' conduct. We are seeing extreme progress to digitalization in India. Long-range informal communication connects individuals throughout the planet as well as serves the best for web-based promoting too. Because of the advancement of innovation, the unremitting expansion in supply and request is developing. With the development of the web and an increment in the use of cell phones, the opportunity has arrived to change the ordinary method of advertising. The quantity of online media clients in India is more than that of different nations. Information on client inspiration is basic as it gives purchasers a comprehension of what drives a brand or store to make content. Various strategies for focusing on clients are presented. The utilization of Internet information by customary Indians is on the ascent, with a ton of dependence via web-based media applications like Instagram, Facebook, Twitter, Linked In, and Snapchat. Undeniably more critical is the effect these applications have on everyday life. The exploration can be extended further to compare the strategies of web making with those normal to various clients.

Keywords: communication, current trend, digitization, networks, smartphones

Online Retail - Impact Analysis on Customers

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Abstract: The B2C E-Commerce market in India has exhibited rapid growth and has attracted significant investments. This research aims to understand the Impact of this fast-paced, growing channel on customers with regards to digital marketing strategies, ease of ordering products, and the difficulties faced with data mining and storing personal information. The age group selected for the research is 18-50 years. The research required for this will be both primary and secondary. Primary research would include focus group discussions, questionnaires, and one-on-one interviews with consumers from different age groups. It is expected that Gen Z and Gen Y will agree with the ease of E-Commerce owing to the digital marketing strategies involved but would not be satisfied with cyber-security and their personal information being stored to create profiles. This research will help understand the Impact of Digital Marketing on consumers and help understand their concerns on data mining and cyber security.

Keywords: Online retail, E-commerce, Digital Marketing, Gen Z, Gen Y, Data Mining, Cyber-Security

Impact of Digital Marketing and Social Media on Consumers

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Abstract. Digital Marketing brings with it a new era of advertising in the 21st century. With the progression of time, it has been noticed that organizations are moving from generic and customary ways of marketing to new ways of reaching out to prospective consumers and customers by tapping online advertising and digital marketing. Digital marketing, in other words, has caught up more extensively and created a niche space in marketing, especially in the metropolitan regions. It has given immediate access to actionable data and information made available at the fingertips to the customers, which enables them to make more secure, precise, and targeted choices than the earlier conventional one. However, being an exceptionally competitive and niche space, it utilizes digital technology advancements that reduce cost and helps in expanding business globally as well. This research study portrays the effect of digital marketing on customer dynamics. The researchers find that this is a significant apparatus in understanding shopper dynamics which furthermore works on hierarchical efficiency and helps in spreading more extensively throughout the market. The researchers find that digital showcasing can greatly affect purchaser dynamics, thereby replacing digital marketing methods with conventional marketing tools that might no longer be as effective and efficient in an ever-changing VUCA world.

Keywords: Digital Marketing, Customer Behaviour, Traditional method, Advertising, Technology, and Innovation.

Opinion of Distributors on the Smart Supply Chain of FMCG Industry

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Abstract: With the advent of Industry 4.0, the integration of technology has become essential in the business models. Many industries are adopting and integrating the Internet of Things and blockchain in their supply chain for innovation. Hence, the current study researches the smart supply chain of the FMCG industry. The research carries out the interviews and takes the opinion of the distributors of the FMCG, who is one of the stakeholders of the smart supply chain (SSC) management system. The study finds the SSC framework management based on the 5W and 1H techniques and the various SSC practices. Supply chain management boosts the efficiency and speed of industrial processes. In order to improve service quality and guarantee product delivery as soon as possible, speed and efficiency are equally important. Automation, data processing and sharing, cyber-physical systems, the Internet of Things, and cloud technologies are all being used more and more in the sector. Modern factories are undergoing ongoing change, which affects how production operations are organized as well as how supply networks operate.

Keywords: Smart Supply Chain, Internet of Things, Blockchain, FMCG industry, Food industry.

Growth and Penetration of Digital Payments in India: Regional Analysis

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Abstract: BFSI forms the cornerstone for the economy, thus forming the basis for the development of an economy by altering and regulating its activities. However, many recent developments and recurring trends and crucial banking trends like NPAs, RBI's Recapitalization, Fraud Detection, Corporate Governance, Policy Environment, Digital Payments, Cooperative banking, diversification of revenue stream, the rise of retail credit, and continuing narrative from NBFCs, makes it imperative to categorizes the different forces at play and warrants in-depth research and analysis on how they imply for Banking as a whole in Financial Year 2020. Further, the Global environment of US Presidential elections, trade tensions, and recession also gives reason for the Indian Banking System to anticipate various layers of complexity and a series of outcomes under different circumstances. India today has a Digital payment ecosystem, which is unique in itself for innovative population-scale payment systems. Therefore, as part of this paper, we will use empirical research in the light of the above-mentioned defining trends to comprehensively quantify and extensively evaluate the growth and penetration of Digital payments in various regions of India.

Keywords: Advertisements, consumers, Gender representations, Equality, Gender Bias, and Marketing.

Factors Affecting the Behavioural Intention to Consume OTT Video Streaming Services in Indian College Student Community

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Abstract: Traditional media is gradually facing tough competition from over-the-top services. Over-the-top is termed in such a way because it bypasses the traditional methods of media distribution and consumption. Over-the-top services are provided with the help of the internet. OTT streaming services are available in Video, Music, gaming, VoIP, texts, and images. The focus of this study is based on video through OTT platforms and specifically focusing on the factors that affect the behavioural intention to consume OTT video content in the college student community in India. This study was conducted through exploratory research by designing a questionnaire and then conducting a survey with the Indian college student community. Students' lifestyles, preferences, influences, and individual emotional and physical states are dynamic, and hence it is imperative that we may conduct regular research on factors that affect their consumption of OTT video streaming services. The results from this study could be used to understand the consumption patterns of OTT content in the Indian college student community.

Keywords: OTT video, video-on-demand, on-demand video streaming, Indian college student, behavioural intention, streaming services.

Image Comprehension and the Emotional Response to Film Editing

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Abstract: In the early era of the films, there were no cuts. The filmmaker shot the film till the film ran out. The film got cut when editing came into existence, and because of editing, the film has got meaning. Storytelling is an art; it could be in any form in written or in verbal. In editing, the editor orders the events carefully and elevates the dramatic impact, bringing a twist in the story and unfolding the information to the audience that is the essence of editing. This article aims to analyze the moving image and its comprehension from the perspective of its content. Elements of the image contribute to the meaning. Human eyes scan the image and based on the brain cognitive ability to derive its meaning. Magnification of the image, shape and size, mise-en-scene, and expression of the shot contributes to the meaning. This article will also identify the importance of editing in the development of the story, how the emotional response changes with the placement of the shot concerning the adjacent shot, and how it brings the variation in meaning.

Keywords: Image, cognitive, perception, shot, duration, timing, rhythm, pace

Simple Way to Achieve Inner-Health with Manache Shlok: A Machine Learning Way

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Abstract: “Manache-Shlok” (MS) is the set of conventions to follow by every individual in daily life. MS is thoughtfully written by Shree Samarth Ramdas Swamiji, who was the Guru of Shree Shivaji Maharaj of Maharashtra. Shri. Ramdas Swamiji was a devotee of Shree Ram and Hanuman, a great poet and saint of Maharashtra. MS shows way of life even today, even after decades of inception. MS is written in Marathi language and is regularly chanted by many for various goals to achieve. By reading the Marathi and English versions of MS, it is clear that these MS are thoughtfully written to cater the needs based on state of mind, importance of exercise, mutual relationship at home or work, believe in God / The lord Rama, or believe in strength of universe etc. In this research paper, we would like to find out the possible hidden patterns among MS, by using Machine Learning and Text Mining concepts. After applying text mining techniques, the various classes of MS are formed, wherein the members of these classes are Shlokas having similar meanings. These classes can be mapped to various personality traits given by psychology. This paper is an attempt to inform readers that chanting all 205 MS is the best option, but it is also beneficial to chant specific Shloka for achieving specific goal or need according to the individual’s psychological traits, or even for the improvement of self.

Keywords: Manache Shlok, mind, Psychology, machine learning, classification, patterns.

Study of Challenges in Agile Software Development Practices in Non-Government Organizations in India

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Abstract: Today’s market climate is competitive, with high speed, rapid change, complexity, and confusion about the factors. Specifically, the field of information technology (IT) has flattened. Because of the combination of technological development and the removal of political barriers, people and organizations can collaborate with almost anyone, anywhere, and anytime. Many agile approaches have been applied since the implementation of the Agile Manifesto in 2001, first in single-team set-ups and then in large multi team set-ups for complex system development in Information Technology (IT). Although rising numbers of companies have adopted agile methods, these strategies are also criticized as the most applicable to small teams and organizations rather than large enterprises with several hundred development teams. The difficulty of implementing agile practices increases when a scale-up of these techniques is needed. There are various other organizations’ challenges while trying to implement agile methodology across teams in a Project. Hence this paper addresses the need to study challenges in Agile Software Development Practices across Teams in Non-Government IT Organizations in India.

Keywords: Agile, Distributed Agile, Non-government, Companies, Software, Development.

Digital Brand Transformers and Digital Engagement in Indian Pharmaceutical Industry during COVID 19

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Abstract: The Indian Pharmaceutical industry has witnessed robust growth despite the COVID-19 crisis. The industry is spearheaded with innovative novel ideas, which have resulted in new products and services which support a healthy lifestyle and safety. The older mechanics and mechanisms of promotional tools and their operations are not relevant in COVID 19 situation. New forms of promotions have to be effectively crafted and communicated to the customers more efficiently. This research aims to study digital brand transformers and digital engagements for Indian pharmaceutical consumers. Data were collected from 75 brand managers of various pharmaceutical companies, and their responses were analysed. The research findings suggest that despite awareness of brand engaging tools like social media marketing and search engine optimization; these tools have not been used strategically. Further, it was observed that to survive and thrive in the post-COVID 19 eras, the pharmaceutical companies start using these tools extensively for active engagement.

Keywords: Pharmaceutical, COVID-19, digital engagement, brand, promotion, Safety, Security

Part-3

Abstracts: Trends in Social Science and Humanities

The Future of Social Entrepreneurship in the Philippines

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Abstract: Recognizing social problems and working to solve them using entrepreneurial strategies, procedures, and activities are the two main components that make up the concept of social entrepreneurship. It all comes down to conducting research to precisely define a social issue before designing, implementing, and managing a social initiative to bring about the desired shift in the status quo. The purpose of social entrepreneurship is to advance social and environmental objectives that can either have a short-term or a long-term effect on the world. In most cases, these business owners have some sort of connection or association with charitable groups (NGOs). It's possible that making a profit is not the primary goal of the firm, even though profit is an essential part of this idea. The sector of Micro, Small, and Medium-Sized Enterprises (MSME) has been one of the most affected by the pandemic that has spread over the world. Only private companies that are able to offer essential services are permitted to operate, as stated in an official memorandum that was distributed by the Office of the Executive Secretary on March 16, 2020. Even though the coronavirus was responsible for a global catastrophe, it has only served to stimulate the innovative spirit of Filipino entrepreneurs and businesspeople. While social enterprises can assist us in meeting our requirements, we also have the ability to contribute to the welfare of front-line workers and underprivileged communities.

Keywords: Social Entrepreneurship, entrepreneurial strategies, Filipino entrepreneurs

Costing, Planning and Control, and Strategic Management Accounting Practices of SMEs

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Abstract: Business organizations face new challenges in the competitive global environment, management accounting is adopted to deploy techniques for achieving efficient operations that deal with competitive advantage. Utilizing different tools and approaches, management accounting generates various financial and non-financial data to support the information needs of organization in the different areas of business. The objective of this study is to determine management accounting practices of SMEs in the areas of costing, planning and control, and strategic decision making. The study adopted a descriptive research design employing quantitative method of data collection and analysis. Study was conducted in Quezon province. Respondents of the study were 363 management accountants of the SMEs. Results show that costing is used to a "Great Extent", as a management accounting practice in SMEs through the creation of products and services in which cost information sets the guide for the setting of sales prices to determine organizational profits. The management accounting practice of planning and control is used to a great extent by the SMEs which defines the performance to be measured and the provision of feedback keeping the strategic plan on target. The management accounting techniques used by SMEs in terms of strategic decision making are being practiced to a great extent which implies the constant engagement of SMEs in obtaining financial information in order to make strategic decisions effectively for the enhancement of their competitive advantage.

Keywords: Management Accounting Practices, Costing, Planning and Control, strategic

Digital Marketing Platforms Used by the Private Higher Education Institutions (HEIs) in Laguna, Philippines

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Abstract: The main problem of the study was the development of a digital marketing guidebook for private higher education institutions. The specific problems dealt with were digital marketing platforms currently used by the HEIs, performance of the HEIs' marketing campaigns using digital platforms based on enrolment funnel describe in terms of gaining visibility, converting prospects to leads, convincing the student to apply, and convincing the students to enrol, and the challenges encountered by the marketing managers on the use of digital platforms in marketing campaigns. A total of twenty-nine (29) CHED registered private higher education institutions in Laguna Province were the participants of this quantitative study. Descriptive method was used in the conduct of research. Percentages and weighted mean were the statistical treatments applied. Facebook Insights was used to measure the performance of the digital marketing campaigns of the HEIs using different digital platforms. The marketing campaigns by the HEIs performed well in the first stage and were completely moved down to the succeeding stages of the marketing funnel, resulting in high costs of acquiring students. Slow adoption of technological advances and hiring marketers to support new marketing strategies were the top challenges in utilizing digital marketing. The use of the proposed digital marketing guidebook for private higher education institutions is highly recommended.

Keywords: digital marketing, higher education institutions, digital marketing guidebook

Operational risks and service strategy of small and medium enterprises in Laguna Philippines

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Abstract: The economic impact of the corona virus disease is unprecedented and uncertain. No matter the sector and industry, the pandemic has forced the world to adapt to the current conditions. This paper was focused in the valuation of operational risks and its perceived effects on the service strategy of small and medium businesses in Laguna Province. Descriptive research and purposive sampling technique were employed with 136 retrieved and treated questionnaires. Self-made questionnaire undertook pilot testing with good internal consistency. Data were assessed using tools in statistics such as frequency, rank, mean, weighted mean and anova. The highest weighted mean for the operational risks relative to management is the "untimely management during strategy - setting process in accepting risk". Whereas, in terms of waste identification, "high staff turnover", got the highest weighted mean. Service strategy was described in moderate performance by the business owners. Management and waste identification under operational risks have significant difference when grouped according to type of service business. Whereas service strategy resulted to have significant differences in business category as to capital, number of employees and type of service business. The findings recommended that government and businesses may create programs that may contribution to full recovery of businesses.

Keywords: operational risks, service strategy, small, medium enterprises, COVID-19 and pandemic

The Effects of Loyalty Card Acquisition as a Tool on the Marketing Strategy of Business Enterprises in Laguna: Improved Customer Relation Management

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Abstract: This study is to determine the effect of loyalty card acquisition as a tool on the marketing strategy of business enterprises in Laguna on improved customer relationship management. The appropriate customer relationship management of using loyalty cards by the loyalty customer can guarantee to have an effect on marketing strategy to increase the profit of business enterprises for future use. Descriptive research is to determine the customer relationship management between the holders of medical and retail loyalty cards, as well as the impact of card acquisition as a tool on the marketing strategy of commercial companies in Laguna, are the main goals of this research. The research instruments to gather facts and information include customer interviews, group discussions with the selected customer using the loyalty card, review of documents, and observation. As a result, a lot of people acquired this card because it can be used in many establishments to get discounts and points earned. Customer loves discounts because it can decrease the original price of the product. Giving them discounts is one of many ways to earn your customer loyalty. Thus, the customers are satisfied by having a loyalty card because it can give discounts every time they buy. In order for clients to use loyalty cards properly and efficiently, the study advises business owners to market them to them. The researcher advises students majoring in marketing to utilize this strategy as their preference if they are starting their own company.

Keywords: Marketing Strategy, Loyalty card, Business enterprises

Consumer Behavior in Life Insurance Plan: A Philippine Strategic Analysis

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Abstract: The human life is the most valuable asset, and the most crucial sort of insurance is life insurance, which offers financial security to an individual and his family in the event of unforeseeable risks or harm. Consumer behavior around life insurance products is evolving quickly. The descriptive-based study was chosen with the goal of identifying the factors that affect consumers' behavior to purchase policies and to examine their preferences while making life insurance investment decisions. In the paper, various insurance-related issues have been covered. Both primary and secondary sources have been used to gather the data for the study. The study was conducted in Laguna, with a sample size of 100 participants. The study aims to analyze the respondent's preferred policy type, preferred insurance company, feature of the insurance policy that drew them to buy, benefit for which they bought, satisfaction level with the life insurance policy purchased, and challenges they faced when deciding to purchase a policy. The results show that purchase intent, attitudes, financial insight, and product accessibility all had an impact on life insurance purchasing behavior. The importance of product accessibility and financial literacy in life insurance purchasing behavior has also been acknowledged. According to the study, financial literacy could encourage life insurance buyers to convert their intentions into actual purchases.

Keywords: Insurance, strategic Analysis, Consumer Behavior

Prospects and Challenges of the Rice Industry in the Province of Laguna Towards Sustainable Marketing and Innovations

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Abstract: This study is to determine the prospects and challenges of the rice industry in the province of laguna towards sustainable marketing and innovations. Descriptive research is to determine the challenges of the rice industry of the country and more specifically that of the Province of Laguna and drawing out actionable solutions toward sustainable marketing and innovations, are the main goals of this research. The research instruments to gather facts and information include farmers' interviews, group discussions with the selected farmer and rice dealer, review of documents, and observation. As a result, the research gathered secondary data to address the issues raised in the paper. Extensive data research was conducted to present a comprehensive landscape of the rice farming industry in the Philippines, specifically in Laguna Province. This can be done through proper education, transfer of technology, and training in managerial skills. Young people should be developed to become agricultural entrepreneurs, taking advantage of technology, know-how, and support from the government. This study recommends that the government through the Department of Agriculture should develop a comprehensive plan on how to help farmers and the system of distribution of rice. A consistent check and balance and assessment of steps and processes on how to improve the farming system in the country should be undertaken. Farmer associations and cooperatives should be strengthened so that farmers would have a better chance of selling their products and getting the necessary support they need from their fellow farmers.

Keywords: Sustainable marketing, Innovations, Rice Industry

Globalization of the Hotel and Leisure Industry After the Covid 19 Pandemic

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Abstract: The hospitality industry has been greatly affected by Covid 19 pandemic since the first quarter of 2020. Part of it is the hotel and leisure industry which the pandemic caused business closure and loss of jobs. Gaming, adventure parks, tourist destinations, restaurants and other industries have to adhere to the restrictions set by the government during that period. This paper utilized the qualitative design using secondary data which identify globalization's evolution and strengths as well as its effects and opportunities in the hotel and leisure industry. The data gathered are anchored with the globalization theory that deals with economic, trade, environmental and socio-economic aspects. It points out that the advent of technology brought by the globalization increases competition. More so, modern technology implored in hotel and leisure industry to reach its people with ease become predominant like the artificial technology.

Keywords: Globalization, hotel and leisure industry, Covid-19, qualitative design

The Impact of Work from Home Set Up on the Productivity of the Selected Employees in the Provincial Capitol of Laguna, Philippines

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Abstract: Due to the rapid augmentation of COVID-19 cases, the operations of many businesses and institutions as well as the occupation of people have been affected. Employers and employees cannot work in a traditional office because of this pandemic. As a result, the majority of nations have adopted a work-from-home set up as a new work arrangement to keep staff employed and to avoid people infected with a virus. The primary purpose of this study is to see if this working arrangement can continue in the absence of a pandemic. Also, to evaluate if implementing work from home had a favourable or bad impact on employee productivity, as well as to find out the experiences of employees who work from home rather than in an office at the Provincial Capitol of Laguna. To test the hypothesis of whether there is or is no significant relationship between work arrangement and productivity of the employees a survey was given to the seventy-one employees, ages of 21 and 60, of the Provincial Capitol of Laguna, Philippines who currently and have experienced working from home. A T-test was used to assess the responses. The results led to the rejection of the null hypothesis and demonstrated that there is a significant difference in employee productivity in a work-from-home arrangement. It can be inferred that employees' productivity in a work-from-home environment differs significantly. These results show that employees are more likely to work from home than in an office. On this basis, even if no pandemic occurs, the concept of working from home should be integrated as part of the work arrangement.

Keywords: work-from-home, productivity, work arrangement, pandemic, work management

CLICKBAIT: The Influence of Sensationalized Headlines in E-Commerce Applications on Consumer's Purchasing Decisions

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Abstract: Clickbait is a sensationalized headline prevalent online, aiming to entice people to click a link, an advertisement, or a headline. The study intends to find out how such a phenomenon is perceived by consumers and the extent of its influence on purchasing decisions through the combined approaches of structured survey questionnaires containing factors of clickbait and an interview using unstructured questionnaires inquiring about how it has influenced purchasing decisions. Fifty (50) respondents were conveniently selected for the survey, while ten (10) were similarly selected for the interview. The results gathered through the statistical application of Pearson-r correlation suggested that consumers consider the visual and psychological aspects of clickbait and are influenced by their purchasing decisions. Interview responses implied the apparent influence of a sensationalized headline in their purchases through various factors such as convenience, visually pleasing images or content, and the credibility and adequacy of the information being presented. The researcher recommended that online shops focus more on improving their virtual advertisements and utilize online survey questionnaires containing questions assessing customer satisfaction regarding their product, experience, and visual presentations. It is also advised that online shops conduct thorough research and in-depth application of the current trends. Consumers should be reminded and aware of those enticing advertisements that provide fake content.

Keywords: Clickbait, sensationalized headlines, customer satisfaction, purchasing decisions

Adoption of Artificial Intelligence in the Philippine Hotel and Leisure Industry: An Assessment

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Abstract: Artificial Intelligence (AI) has been in the headlines nowadays as it makes human work easier and faster. Organizations adopted this kind of technology to keep up with the globalization demand, and the hotel and leisure industry is among the business sectors to integrate AI into its business model. This paper looks at the status of the adoption of artificial intelligence in the hotel and leisure industry in the Philippines as well as its capacity to take full advantage of the perceived benefits of the said technology in the future. This is anchored on Roger's Innovation Diffusion Theory (IDT) as it rests on the underpinning for comprehending innovation adoption and the elements that influence an individual's decision to accept new technology. This research employed a qualitative design using secondary data from research journals and articles. It focused on the adoption, and relative advantage of artificial intelligence in general such as efficiency, revenue enhancement, investment cost, reputation management, competitive intelligence, compatibility, and complexity. It was determined that Philippines scored mid-level in the AI adoption scale and seemed to denote that there is promise in the adoption of the technology in the country. However, a lot of effort and planning could still be employed. Conducting research about the long-term effects of Artificial Intelligence and other related technologies on potential, ethical risks, weaknesses, and risks for customers and employees, particularly in service-oriented industries is recommended.

Keywords: artificial intelligence, hotel and leisure, innovation, qualitative design, reputation management

Ecotourism, Social Enterprise of the Pandin Lake Tourist Service Cooperative, Sto. Angel, San Pablo, Laguna: Assessment and Suggested Tourism Development Plan

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Abstract: Ecotourism is valuable vehicle to provide environmental, socio-economic and cultural values at both local and national levels. This paper was conducted to evaluate the ecotourism and social enterprise at the Pandin Lake, Sto. Angel, San Pablo City, Laguna. Specifically, this paper will describe the demographic profile of the Pandin Lake Tourist Service Cooperative as part of the Gender and Development (GAD) project and gathering Sex Disaggregated Data (SDD) and Gender Disaggregated Data (GDD) in terms of age, sex, civil status, highest educational attainment, family income and years of residency in Pandin Lake; this data will be used as key economic factors in proposing government Programs, Activities, Projects (PAPs) for the development of the community economic, social, environmental and sustainable development goals. To assess/ evaluate the present status of ecotourism and social enterprise of the members and cooperative in the Pandin Lake, in terms of environmental, economic and socio-cultural. Also to establish the importance of tourism development plan and to develop and market Pandin as a tourist destination; and to propose tourism development plan to further develop the ecotourism industry of San Pablo City and whole province of Laguna as well as the whole Philippines.

Keywords: Ecotourism, Social Enterprise, Tourism, Tourism Development plan, gender and development

Level of Awareness on Green Accounting Practices of Corporations in Lipa City, Philippines

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Abstract: Green accounting plays a vital role in the sustainable development to incorporate the worth of nature's products and services. This study aims to assess the level of awareness of corporations on green accounting practices in Lipa City and to find out how their responses differs with respect to their corresponding business demographic profile. The study made use of descriptive method which involves 238 respondents from different corporations. The researcher used a survey questionnaire as main instrument to gather data. Results show that most businesses have capitalization of Php50,000 to Php1,000,000. The majority of corporations in Lipa City have been operating from 6 to 15 years with 1 to 9 employees. Furthermore, the results also revealed that the large number of businesses' monthly income is Php250,000 and below. Corporations' financial accounting, social accounting and environmental accounting agree to the principles of green accounting, however, knowledge is low. Their business profiles affect their knowledge of green accounting. The researcher proposed courses of action that can help corporations know more about green accounting, its advantages and sustainability that will benefit their businesses.

Keywords: Green Accounting, Corporate Social Responsibility, Environmental Cost, Cost Theory, Environmental Accounting Framework, Environmental Information

Pandemic Marketing Strategies of Selected Restaurants: Evidence from the Province of Laguna, Philippines

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Abstract: All restaurant businesses, most especially the Micro, Small, Medium Enterprises (MSMEs), struggled to survive during and after the pandemic. Business lessons and success patterns can be drawn from those who survived the pandemic. This is descriptive research. This study aims to find the specific challenges encountered by selected MSME restaurant owners and managers in the Province of Laguna during the pandemic and the strategies used to maintain businesses profit. An in-depth interview was conducted among seven selected MSME restaurant business owners and managers. Results showed that their challenges include price hike of food ingredients, stiff competition, marketing, delay in supplies deliveries and employee resignations. Respondents focused on food delivery and take-out services and took advantage of limited dine-in services once this was allowed. They relied heavily on online marketing in combination with other promotional activities. Effective use of marketing mix and sound management decisions in the proper allocation of resources met partially the marketing challenges brought by the pandemic. This study recommends that MSME restaurant owners and managers carefully examine other marketing strategies to directly respond to market challenges and ensure that their products and services are positioned to meet the specific customer needs.

Keywords: pandemic marketing challenges, marketing strategies, MSME restaurants

Adoption of Accounting Information System Software by Small and Medium Enterprises (SMEs) at Santa Cruz, Laguna, Philippines

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Abstract: Today, all businesses including small and medium enterprises are operating and competing in an exceedingly globalized modern era where accounting information systems are widely adopted by businesses to extend the prevailing operating conditions of the corporate. But the Philippines face problems in implementing the adoption of the Accounting Information System. As a result, the study was conducted with an aim of analysing and understanding the factors that affect the adoption of Accounting Information System (AIS) Software and to study the main problem which is to develop a guideline in adopting the Accounting Information System Software as tool for effective decision-making in small and medium enterprises at Santa Cruz, Laguna. To test the hypothesis that there is no significant difference on the factors affecting the Adoption of AIS Software as determined by the managers and its effects to the performance of the small and medium enterprises at Santa Cruz, Laguna. Chi-square of independence was used. The data were collected using the Google Forms. A total of eighty (80) respondents participated in the survey. The results show that only two factors, namely organizational and technological factors have significantly affect the adoption of AIS Software and using AIS software can reduce the operational cost of the Small and Medium Enterprises. Therefore, the null hypothesis is rejected. The findings suggest that management must be fully committed in adopting AIS to have an effective decision-making, fasten the accounting or business transaction and a better organizational performance.

Keywords: accounting information system, small and medium enterprises, organizational performance

Generation Z Consumers' Green Food Consumption Intention

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Abstract: The study aims to provide food businesses' guide in formulating green food marketing campaigns. The study is anchored in the theory of planned behavior. The study used awareness of green foods as an extension variable. The research design is quantitative with descriptive, exploratory, and explanatory nature. It used descriptive statistics, exploratory factor analysis, Pearson r correlation, and multiple linear regression for data analysis. The Generation Z of Laguna, Philippines was highly aware of the features of green foods as healthy, quality, and environmentally safe foods. The attitude was found to be the most significant predictor of participants' green food consumption behavioral intention. Managers are suggested to draw insights from the study in formulating a green food marketing campaign to encourage Generation Z consumers to consume green foods. Though convenience sampling limits the generalizability of the results, managers are still expected to benefit from the analytical generalizations that can be generated from the study.

Keywords: awareness, consumption intention, green foods, theory of planned behavior

Maintenance Management Practices on Building and Building Facilities of the Philippine Postal Corporation (PHILPOST)

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Abstract: Effective maintenance management is essential to maintain the capital invested, enhance its value and sustain reasonable investment return. The study aims to determine the current maintenance practices as against the established regulations on building and building facilities maintenance of the Philippine Postal Corporation (PHILPOST). A total of thirty-four (34) postmasters of selected post offices in Luzon participated in the survey. Descriptive method was utilized, and data were analyzed using weighted mean and ANOVA. The results indicate that PHILPOST implemented building maintenance practices to a moderate extent. The mean perceived importance of the maintenance practices indicates the significant role in improving maintenance efficiency. Significant differences in the extent in implementation of the building maintenance practices were found on maintenance plan, monitoring activities, identification and assessment, knowledge-sharing and communication and training dimensions. The results also indicate that management factors such as insufficient funds/budget and improper budget allocation and lack of skilled workers to support the maintenance activities are barriers to poor implementation of maintenance practices in the PHILPOST offices. The results of the study provide useful inputs for developing additional maintenance management procedures to be used by the PHILPOST offices for effective maintenance strategies and practices.

Keywords: maintenance practices, PHILPOS, Effective maintenance strategies, knowledge sharing

The Impact of Training and Development Programs on Employees' Performance: Case of business process outsourcing Company in the Philippines

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Abstract: Training serves as a powerful instrument to enhance employees' efficiency and competency as well as organizational development. The study aimed to determine the impact of the training and development program on employees' performance. The study employed the quantitative research method. Weighted mean and ANOVA were used. A total of fifty (50) respondents participated in the survey. The findings indicated that emotional intelligence, managerial support, facilities, material resources, training content, as well as financial factors, significantly influence the implementation of the training programs. Additionally, the findings show that overall training and development positively correlate with the employees' performance in terms of productivity, growth, satisfaction, engagement, and morale. The research affirmed the proposition that training and development have a positive impact on employees' performance. However, there are no significant differences in the effectiveness of the training and development programs as perceived by the employees in terms of productivity, growth, satisfaction, engagement, and morale. While it shows that there is a significant difference in the factors that affect the implementation of the training and development programs as perceived by the employee. It is recommended that management should consider and accept the proposed action plan for the improvement of the training and development programs at the organization.

Keywords: training programs, employees' productivity, organizational performance

Impact of Using Blended Learning Platforms Delivering Education as Perceived by the Students in the Higher Education Institutions (HEIs) in Santa Cruz, Laguna, Philippines

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Abstract: When the pandemic struck, higher education adopted blended learning as the new standard curriculum. Blended learning is a combination of conventional, online, and digital components of education to provide students with a flexible setting for their experiences and learning. This study examined the effects of adopting blended learning platforms to offer education to students in Laguna, and it goes into further detail regarding the aspects influencing students' learning processes. These factors scrutinized how students, educators, organizations, learning assistance, technology, and content interact. In the subsystems of the complex adaptable blended learning system framework, the considerations of these factors are more important. Further, the study explored the coping mechanisms used by students and teachers in adjusting to the new standard curriculum. While the characteristics are discussed, the study also considered how the aforementioned aspects impacted student engagement, ability to cope, learning outcomes, motivation, and the advantages of participation. It was therefore revealed that blended learning has significantly influenced the development of the new normal learning, which helped students successfully adjust. Hence, many students view blended learning as being both flexible and time-efficient.

Keywords: blended learning, complex adaptable blended learning system framework, new normal

Evolving Academic Culture in the New Normal: Direction Towards Quality Management, Effectiveness of Policy Implementation and Curriculum Adaptation in Higher Education Institutions

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Abstract: The new normal pose a challenge in the academic culture, management and existing policies of the higher education institutions. The new normal calls for the creation and implementation of "new normal educational policy" in order to continue and provide quality education despite lockdown, community quarantine and compliance to minimum health protocols. This study aims to determine and analyze the factors affecting the culture, management and policies of the higher education institutions. Specifically, it analyzes the effect of total quality management and institution's culture to quality assurance program. To test the hypothesis that the effectiveness of quality assurance program factors is significantly related to the level of implementation of total quality management and level of institution's culture an on-line survey was undertaken to administrators, personnel, teachers and students of the four (4) campuses of Laguna State Polytechnic University. The results showed that Total Quality Management and institution's culture is significantly related to the perception of the Quality Assurance Program effectiveness. The result shows that the schools have yet to reach a high level of quality assurance program. Relative to this, the educational institution's Total Quality Management must be improved together with the school culture to effect a positive change towards creating plans and initiatives in the implementation of an effective Quality Assurance Program.

Keywords: New normal, quality assurance program, academic culture, total quality management

Flexible Learning Environment and the Motivation in Studying Mathematics Online AMONG College Students

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Abstract: Due to the COVID-19 pandemic situation which led to an educational shift, institutions have been forced into a learning process that posted limitations as they switch from traditional direct teaching approaches to flexible learning. Mathematics teaching and learning are also affected as it moved to be delivered online. This study determined the status of the flexible learning environment of the students at home and assessed how they were motivated in learning Mathematics despite its online learning set-up. Descriptive research with moderation analysis was employed whether sex profile significantly moderate the relationship between a flexible learning environment and the perceived level of motivation in online learning. Thirty-eight mathematics pre-service teachers composed of 11 males and 27 females were the respondents of the study. It was found out that there is an established flexible learning environment with highly observed instructional support and active learning. An observed level of student interaction and collaboration, personal relevance, authentic learning, and autonomy was evident in the investigation. Moreover, it was identified that the student-respondents are motivated in studying Mathematics online with consideration of intrinsic and extrinsic goal orientation, control of learning beliefs, self-efficacy, task value, and social engagement. Furthermore, it is statistically explained that sex profile significantly moderates the relationship in which female respondents showed a strong relationship between the established flexible learning environment and motivation in studying mathematics online.

Keywords: Flexible Learning, Learning Motivation, Mathematics Learning, Mathematics Teaching

Research Competence and Productivity of Faculty Members in LSPU: Bases for Mentoring and Training Program

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Abstract: One of the four core functions of faculty members of every university is research, which is one of the criteria for quality services in higher education institutions. This study is focused on assessing the research competence and productivity to strategically plan a mentoring and training program for the faculty members. Descriptive-correlational research design with moderation analysis were used participated by 68 regular faculty members as respondents of the study. The study reveals that faculty-respondents are competent in research conceptualization, writing an introduction, reviewing literature, identifying appropriate materials and methods, research implementation, employing data analysis and interpretation, generating conclusion and recommendation, crafting research abstract, processing the paper to publication and managing citation. It was found out as well that most of the respondents have 1-2 proposed projects, with 4 and below completed papers, presented papers in conferences twice with at least one published paper for the past three academic years. Moreover, when faculty are competent in writing and processing a research paper it can help attain greater research productivity in the institution as reflected by a positive significant relationship. Furthermore, length in service and academic rank significantly moderate the relationship between competence and productivity in research posting strong relationship among faculty members who were designated to a higher position who works longer in the university. Based on the weak points of the respondents, it was recommended to organize a mentoring and training program to faculty members with concentration on data analysis and identifying appropriate materials and methods.

Keywords: Research Competence, Research Productivity, Research Engagement, Research Program

Time Management as Mediator in the Quality of Asynchronous Online Sessions and Learning Engagement of Senior High School Students

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Abstract: Students can learn independently at their own pace and evaluate their learning with the teacher and peer feedback in asynchronous discussions. It is now part of the New normal way of teaching and learning delivery in every higher institution in the country. The study is focused on determining whether time management mediates the relationship between the quality of asynchronous online sessions and the learning engagement of 149 Senior High School Students who answered the adapted-modified instruments. The study used descriptive research with mediation analysis to satisfy the objectives. The results revealed that the students engaged themselves in an asynchronous online session using their mobile phones connected with either fiber connection or wireless broadband/ mobile data. They observed quality in the delivery of asynchronous online sessions considering the learning interface, learning community, learning content, and personalization. It also revealed that in doing asynchronous activities, student-respondents effectively managed their time to ensure that outputs were to be submitted, which also post their engagement in doing the tasks at their best. Furthermore, the generated model in the study shows that well-managed time partially mediates the significant positive relationship between the quality of asynchronous online sessions and the students' learning engagement. Senior high school teachers may monitor the progress of the students who work and submit their output in an asynchronous online session and allocate appropriate time for accomplishing the tasks. With this, higher student engagement can be more realized to attain greater academic success.

Keywords: Asynchronous Online Sessions, Flexible Learning, Time Management, Learning Engagement

Strategies in Asynchronous online and learning Motivation of College Students

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Abstract: In asynchronous online learning, students work individually to create more personalized learning experiences and ensure to present their best work. By employing appropriate strategies in learning a lesson, students become more creative and motivated to accomplish the tasks. This study described which strategies are preferably used by College students in studying at an asynchronous session and how they contribute to becoming more motivated in learning the lessons. The descriptive-correlational research design was used, having 150 college students in the College of Teacher Education participating in the study. These students commonly use their mobile phones in their asynchronous online sessions with fiber connection or wireless/ mobile data. The result shows that student-respondents observed to use reading strategy, studying the course materials, self-management, and interaction with others to ensure that they can be effective in an asynchronous online session. Most students are also motivated to handle learning situations during an asynchronous session with consideration of task value, intrinsic and extrinsic goal orientation, self-efficacy, and control of learning beliefs. It was depicted in the study that there is a significant positive relationship between the strategies in asynchronous online and the learning motivation of the college students, indicating that when there is a highly observable measure to use the strategy, the more that student-respondents become motivated in learning the lessons. The result of the study may help learners strategically manage their learning sessions so they may do their work at their own pace regardless of the asynchronous circumstances they encounter.

Keywords: Learning Strategies, Learning motivation, Flexible Learning, Asynchronous Online Modality

Knowledge Management Assessment: Input to a Proposed Knowledge Transfer Practice in One State University

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Abstract: Every educational institution uses knowledge management to stimulate innovation inside the organization, provide student-clientele and other stakeholders more access to best practices, and effectively manage office turnover. The study is focused on determining the status of knowledge management in the institution, determining whether there is a significant difference among the practices employed by four different campuses, and finally finding out whether there is a significant relationship between and among the parameters to describe knowledge management. A descriptive research design was used in the study with 177 respondents who answered an adapted research instrument. It was found out in the study. The study described that there is a good level of knowledge management in the institution, particularly on its process, leadership, culture, technology, and measurements. Moreover, it is noted that there is no significant difference in the level of knowledge management on four campuses which implies that there is uniformity in the processes being taken by all offices and is noteworthy to mention. Further, a positive significant relationship is depicted between and among the variables of knowledge management particularly the process, leadership, culture, technology, and measurements. Knowledge leadership, culture, technology, and measurement outcomes may all be improved when procedures in knowledge management are adequately developed. Together, all of the variables make it possible to attain higher organizational performance. By using the study's findings, knowledge transfer should be properly organized. It should also be made clear to all office heads that no designation is permanent, and plans and programs should be shared with successors to guarantee continuation. Technology for office service storage has to be developed to properly follow good knowledge management practices.

Keywords: Leadership in Knowledge Management, Knowledge Transfer, Knowledge Management Technology

Organizational Support Systems and Task-Technology Fit as Predictors of HEI Faculty Performance and Productivity

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Abstract: As a result of COVID-19, the educational system has modified the phases of learning delivery mode to give more effective and efficient academic services. Faculty duties and responsibilities in higher education institutions are centered on teaching and learning, accountability, and student success. Organizations minimize barriers to progress, change employee roles and responsibilities as needed, and motivate individuals to improve. This study used the organizational support systems (OSS) framework and task-technology fit (TTF) model as theoretical framework to determine key predictors of higher education institutions (HEI) faculty performance and productivity (FPP) among faculty. Survey questionnaire was developed to measure constructs of organizational support systems and task technology fit perspectives among 186 faculty of one state university in the Philippines. Findings revealed that organizational support system is highly manifested task-technology fit was highly practiced among faculty. Likewise, moderate to strong association was seen between OSS, TTF and FPP variables. Finally, two OSS (communication; capacity and resources) and TTF (performance impact; utilization) variables were deemed predictors of faculty performance and productivity.

Keywords: organizational support system, TTF, institutional performance and productivity

One Higher Education Institution's Commitment and Learning Organizations in Producing Quality Teacher Performance

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Abstract: Educational institutions must establish and attain objectives. Every educator must be committed to his job and collaborate with his colleagues and school administrators. If a school wishes to properly instruct its students, its instructors must have the passion and dignity to assist others recognize their significance. This study used the institutional commitments constructs and the five disciplines of learning organization as theoretical framework to determine key predictors of quality teacher performance among higher education institutions (HEI). Survey questionnaire was developed to measure constructs of institutional commitments and perceptions on learning organization among 163 faculty of one state university in the Philippines. Findings revealed that institutional commitments were highly observed and learning organization disciplines was highly practiced among faculty. Likewise, high manifestation of quality performance and productivity was seen among respondents. Furthermore, moderate to strong association was seen between the variables. Finally, institutional commitments (ownership and accountability; high expectations; operational flexibility) and learning organization (team learning; systems thinking; mental models) variables were deemed predictors of quality teacher performance and productivity.

Keywords: institutional commitments, learning organization, quality performance

Leading Instructional Coaching Culture in Schools Toward Enhanced Teaching Competence and Behaviors of Public Secondary School Teachers

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Abstract: The coaching or technical support provided by the instructional coach who serves as the district supervisor, school principal, and headteacher is beneficial to the teachers at the school. Teachers' instructional strategies and management are being closely watched to guarantee that the students are receiving the greatest possible education. With this, the researcher focused the study on instructional coaching culture in public secondary schools and how it contributes to the teaching competence and behavior of the teachers. Descriptive and correlational research designs were used which were participated by 201 teachers from seven secondary schools in Clusters 1-4 of Calamba East District. The study revealed that instructional coaches have a great extent of coaching opportunities for maximum performance, work improvement, strengthening skills, competencies, and behavior. The Instructional coaches are mostly responsible for satisfying their coaching roles and have a very good coaching quality of being genuine, supportive, with empathy, and trustworthy. The teacher respondents of the study as exposed to coaching culture are competent and with very good teaching behavior. Moreover, there is a positive significant relationship between the instructional coaching culture and teaching competence. Similarly, a positive significant relationship is depicted between instructional coaching culture and teaching behavior. Lastly, Trustworthiness as a coaching quality predicts the teaching behavior of the teachers, and that the coaching for maximum performance and work improvement positively predicts the teaching behavior. The study result suggests that instructional coaches should focus on several activities to give technical assistance on aspects that promotes maximum performance and work improvement among teachers this would help boost better outcomes in the accomplishments to be done.

Keywords: Instructional Coaching, Coaching Culture, Teaching Competence, Teaching Behavior

Self-Paced Learning Strategies and Reading Comprehension of Grade 9 Students

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Abstract: One of the most pressing problems of today's teachers is how to guarantee that their students are capable of adjusting and becoming self-sufficient learners who can fully comprehend what they are being taught. This study explains the students' self-paced learning strategies and how they helped them improve their reading comprehension, the quantitative descriptive correlational method was adopted in two secondary schools of cluster 3 in the DepEd-Calamba City namely Calamba Bayside Integrated School and Looc Integrated School. There were 300 students to be considered in the study, equally distributed to the two schools where most of the respondents are in the age bracket of 14-15 and are mostly female. The results of the study show that self-paced learning strategies are fully implemented by the Grade 9 students in managing physical environment and effort regulation while in implemented levels in goal-setting, help-seeking, and self-study. Considering the status of students learning strategies they were able to obtain a rating of an outstanding level of reading comprehension on fluency, very satisfactory levels of decoding and vocabulary, satisfactory levels of reasoning and background knowledge, and fairly satisfactory levels of sentence construction and cohesion, working memory and attention. As its inferential proof, it is depicted that there is a positive significant relationship between the implementation of the self-paced learning strategies and the level of reading comprehension of the students, which implies that when students were able to employ well a certain strategy that would help them learn independently, it allows them to attain very satisfactory to outstanding levels of reading comprehension.

Keywords: Self-Paced Learning, Independent learning, Reading Ability, Reading Comprehension

Health, Physical Fitness, and Skills of First Year College: Evidence from a Philippine College

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Abstract: Physical fitness is one of the factors essential for good health and active life. Physical activity and physical fitness are interrelated in the application and health benefits. This study aims to assess the freshmen students' current physical fitness and determine their physical skill capabilities. Department of Education's (DepEd) Physical Fitness Test Manual was used as a guide in developing the assessing instrument. Established standards were used to gauge the physical fitness related to health. There are five (5) health-related components of fitness: body composition, flexibility, cardiovascular fitness, muscular strength, and muscular endurance. Skills have six (6) components: agility, balance, coordination, speed, power, and reaction time. The tests were administered to 52 college students out of 100 students who are in their freshmen. Results show that 70% are physically fit, while 30% are not fit. Although most or 33 of the students' body composition is within the normal range, ten (10) students are underweight, while seven (7) are overweight, and two (2) are obese. Strength tests of 21 students revealed that they did not pass the push-ups test, while 52 or all of them did not pass their curl-up test. These results suggest that the body composition and the strength of the students need improvement. Their lack of exercise could be a factor to consider in improving students' body composition index and strength. The results of tests to determine students' flexibility is normal, and their cardiovascular endurance is excellent. T-test results show that there is no significant difference in the skill-related fitness of 16 to 20 age range of students and the 21 years old and above.

Keywords: Physical fitness, physical skill, fitness tests

The Alternative Conception About Free Fall in Preservice Elementary Students: Rasch Analysis

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Abstract: The research aims to develop and evaluate alternative conceptions about the free fall of preservice elementary school students. The research method used is the survey method. Participants in this study are 100 male students and 150 female students. These two questions about free fall have already been analyzed using Rasch analysis. The classification of student ideas has always included four subcategories: scientific conception (SC), lack of knowledge (LK), error (Er), and misconception (Mc). The research results show that most students have alternative conceptions or misconceptions that the length of time an object falls is affected by the mass of the object, even in outer space. Learning strategies using cognitive conflict can be used as an alternative to change the conception into a scientific conception.

Keywords: Rasch analysis, alternative conception, free fall, preservice elementary school students

Part-4

Abstracts: Trends in Organic Electronics

Reinforcing Li-ion Batteries with Electrochemical Impedance Spectroscopy

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Abstract: Global transformations in the disciplines of autonomous vehicles, machine intelligence, and aerospace structures have led to an unprecedented utilization of Lithium-Ion Batteries (LIBs) due to their superlative characteristics. As electrochemical exploration grows more significant, analytical approaches for determining the status of Li-ion batteries are becoming more prominent. Electrochemical Impedance Spectroscopy (EIS) is a commercially efficacious non-destructive technique for analyzing LIBs due to its convenience, frequency, accuracy, and relatively inexpensiveness. EIS can anticipate the internal thermal fluctuations of LIB efficiently and precisely; no mechanical heating elements or thermal models are obligated. This study incorporates the EIS's operational model as well as techniques for estimating the temperature in LIBs such as impedance, phase shift, and intercept. In addition, EIS applications for LIBs, notably resistance of the bulk (R_s), charge transfer reaction (R_{ct}), and interface layer (R_{SEI}) are demonstrated, and the paper culminates with a brief discussion and challenges of EIS-based Li-ion batteries.

Keywords: Lithium-Ion Batteries (LIB), Electrochemical Impedance Spectroscopy (EIS), State of Charge (SoC), State of Heat (SoH)

A Systematic Review on 4D Printing Technology

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Abstract: The prognosis of manufacturing is confined, asset-light, and is brooded over adaptation to every client's preference. Additive manufacturing (AM) is a cardinal facilitator of this transition and is anticipated to become a fountainhead in futurity. AM's advancement is transforming the way goods are designed and engineered; however, it still needs recognition from all aspects of the manufacturing industry to realize its maximum potential. AM is regarded as a breakthrough technology in the industry because of its ability to build lightweight, sturdier components and systems. 3D printing, an alias for AM that has swept the industry and popular culture, has enabled researchers to produce intricate forms that would have been difficult to fabricate using traditional techniques. Not long ago, 3D printing was the newest kid on the block; now, since the word "4D printing" is in the limelight, it is straining our ability to explore innovative ideas. Supported by time dimension, 4D printing allows the fabrication of dynamically adjustable geometries by utilizing Smart materials. With additional applications in the medicinal, aerospace, and defence industries, 4D printing technology is envisioned to become more established and acknowledged. This paper provides deep insight into 4D printing along with the justifications of their morphing practices. Moreover, a case study on soft robotics for biomedical applications has been presented.

Keywords: Additive Manufacturing (AM); Smart Materials; 4D Printing; Soft Robotics; Bio-Medical.

On the Introductory and Conceptual Establishment of the Physical Time with Spatial Coordinates

Prasenjit Debnath

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Abstract: The Earth is moving around the Sun with one revolution in a year (an Earth year). The sun is moving around the Sagittarius Black hole (at the center of the Milky Way galaxy) in a cosmic year (about 225 million years). As the Universe is expanding, the Milky Way galaxy is flying away from other galaxies at an astonishing speed; we are just thrown away to the deep dark space. In that sense, we can never be there where we were in one second ago. Thus, we cannot return to the space where we were one second ago. In other words, there is no return with spatial coordinates in the absolute sense. But, on the relativistic sense, we can return to the space which we occupied in earlier time. For example, we go to work from home, and we return to home from work at the other time, and it serves our purpose to believe that there is return in space. But the most intrigue problem we face is time, it does not matter whether it is absolute sense or relativistic sense, we cannot return in time. Time itself prevents us to understand time better. In this paper, a theoretical temporal model is introduced to understand the temporal properties in a better way. An in – depth analysis is made to have proper insight in the temporal model with the incorporation of spatial coordinates.

Keywords: Sagittarius black hole, cosmic year, milky way galaxy, spatial coordinates, temporal properties



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11 th November 2022 (Malaysia Standard Timings (+8:00 GMT))		
S. No.	PROGRAM	
A	Registration and Distribution of Conference Kits	09:00 AM – 09:30 AM
B	Inaugural Session	09:30 AM – 11:25 AM
1	Welcome of Dignitaries	09:30 AM – 10:00 AM
2	Welcome Address and Brief about the Society by Dr. R. C. Singh , President SRD	10:00 AM – 10:10 AM
3	Introduction of Keynote and invited speakers	10:10 AM – 10:15 AM
4	Keynote Address <i>Advancing Mobile Payment Research in the Age of Digital Acceleration</i> by Dr. Garry Tan Wei Han (UCSI University, Malaysia)	10:15 AM – 10:45 AM
5	Invited Talk <i>Artificial Intelligence Towards Smart Engineering Industry</i> by Prof. Dr. Leong Wai Yie (INTI International Univ., Malaysia)	10:45 AM – 11:00 AM
6	Invited Talk <i>Chemistry: Thinking for Sustainable Chemistry Education</i> by Dr. Corrienna Abdul Talib (Universiti Teknologi Malaysia, Malaysia)	11:00 AM – 11:15 AM
7	Felicitations of dignitaries of inaugural session, Dr. Venus Ibarra (SPC, Philippines), Dr. Khar Thoe Ng (RECSAM), Prof. Md. Aqeel Ashraf (Zibeline International Publishing, Malaysia)	11:15 AM – 11:20 AM
8	<i>Vote of Thanks</i> by Dr. Rohit Khokher	11:20 AM – 11:25 AM
	Group Photo followed by Networking High Tea	11:25 AM – 11:45 AM
C	SESSION-I: Session Chair Prof. Dr. M. P. Singh, IET, Dr. B. R. Ambekar University, Agra, India	11:45 AM – 01:40 PM
1	Overview of the session by Prof. Dr. M. P. Singh	11:45 AM – 11:50 AM
2	Invited Talk <i>AI Age calculator, Peter Chew Triangle Diagram Calculator</i> by Prof. Peter Chew (PCET Multimedia, Malaysia)	11:50 AM – 12:10 PM
3	<i>On the Introductory and Conceptual Establishment of the Physical Time with Spatial Coordinates</i> by Prasenjit Debnath	12:10 PM – 12:20 PM
4	<i>Impacts of Digital Transformation and Research Trends in Data Science: Technology-enhanced Exemplars in Education 4.0 and Future Direction</i> by Ng Khar Thoe	12:20 PM – 12:30 PM
5	<i>Feed Forward Multilayer Neural Network Models for Speech Recognition</i> by Pratibha Rashmi	12:30 PM – 12:40 PM
6	<i>Hopfield Neural Network for Signature Verification on Banks using Auto-association Techniques</i> by Amit Singhal	12:40 PM – 12:50 PM
7	<i>Case Exemplars in Digitally Transformed Mathematics with Suggested Research</i> by Masanori Fukui	12:50 PM – 01:00 PM
8	<i>Developing Programming Education Using Mathematical Puzzles and Games to Enhance Students' Creative Attitudes</i> by Masanori Fukui	01:00 PM – 01:10 PM
9	<i>The Impact of Digital Transformation on the Implementation of the 12th Regional Congress Search for SEAMEO Young Scientist (SSYS) 2022</i> by Su Ling Loh	01:10 PM – 01:20 PM
10	<i>Empowering Conceptual and Procedural Knowledge Development in Technology-enhanced Environment: Innovation Challenges and Exemplars</i> by Chee Keong Chin	01:20 PM – 01:30 PM
11	<i>Integrated Cellular and Ad Hoc Relay System – A Performance Analysis</i> by Rajendra Kumar	01:30 PM – 01:40 PM
	Networking Lunch and Poster Presentations	01:40 PM – 02:40 PM

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D	SESSION-II: Session Chair Dr. Venus Ibarra, San Pablo Colleges, Philippines	02:40 PM – 05:50 PM
1	Session Overview by Dr. Venus Ibarra	02:40 PM – 02:45 PM
2	Invited Talk Pattern Classification Using Quantum Neural Networks: A Novel Approach in Machine Learning by Dr. M. P. Singh	02:45 PM – 03:00 PM
3	The Future of Social Entrepreneurship in the Philippines by Eduardo R. Lolas	03:10 PM – 03:20 PM
4	Costing, Planning and Control, and Strategic Management Accounting Practices of SMEs by Joseph Alfred M. Reyroso	03:20 PM – 03:30 PM
5	Digital Marketing Platforms Used by the Private Higher Education Institutions (HEIs) in Laguna, Philippines by Adorvee A. Ramos	03:30 PM – 03:40 PM
6	Operational risks and service strategy of small and medium enterprises in Laguna Philippines by Elaine Joy C. Apat	03:40 PM – 03:50 PM
7	The Effects of Loyalty Card Acquisition as a Tool on the Marketing Strategy of Business Enterprises in Laguna: Improved Customer Relation Management by Carolyn I. Maghirang, Benilda Jito	03:50 PM – 04:00 PM
8	Consumer Behavior in Life Insurance Plan: A Philippine Strategic Analysis by Lou Anne Pronto	04:00 PM – 04:10 PM
9	Prospects and Challenges of the Rice Industry in the Province of Laguna Towards Sustainable Marketing and Innovations by Ma. Prances Pelobello	04:10 PM – 04:20 PM
10	Globalization of the Hotel and Leisure by Lorena H. Garcia	04:20 PM – 04:30 PM
11	The Impact of Work from Home Set Up on the Productivity of the Selected Employees in the Provincial Capitol of Laguna, Philippines by Alyssa Jilian F. Arjona	04:30 PM – 04:40 PM
12	CLICKBAIT: The Influence of Sensationalized Headlines in E-Commerce Applications on Consumer's Purchasing Decisions by Ethelyn M. Catambio	04:40 PM – 04:50 PM
13	Adoption of Artificial Intelligence in the Philippine Hotel and Leisure Industry: An Assessment by Marterose P. Valenzuela	04:50 PM – 05:00 PM
14	Ecotourism, Social Enterprise of the Pandin Lake Tourist Service Cooperative, Sto. Angel, San Pablo, Laguna: Assessment and Suggested Tourism Development Plan by Patrick James Putungan	05:00 PM – 05:10 PM
15	Level of Awareness on Green Accounting Practices of Corporations in Lipa City, Philippines by Nekla Rosina	05:10 PM – 05:20 PM
16	Pandemic Marketing Strategies of Selected Restaurants: Evidence from the Province of Laguna, Philippines by Randolph I. Nonato, Dinaab Evangelina P. Bauayo	05:20 PM – 05:30 PM
17	Adoption of Accounting Information System Software by Small and Medium Enterprises (SMEs) at Santa Cruz, Laguna, Philippines by Karla Pamela Nosa Mangaba	05:30 PM – 05:40 PM
18	Robin Hood Army initiative against hunger for achieving Sustainable Development Goals by Aashish Jain (Robin Hood Army)	05:40 PM – 05:45 PM
19	Vote of Thanks by Dr. R. Kumar	05:45 PM – 05:50 PM
Networking High Tea and closing of Day-1 of Conference		05:50 PM – 06:00 PM



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SESSION-III: Session Chair: Dr. Venus Ibarra, San Pablo Colleges, Philippines		09:30 AM – 10:55 AM
E	1	Introduction of Session Chair and Invited Speaker
	2	Invited Talk <i>The Current Pedagogical Trend in Science Education</i> by Prof. Dr. Ong Eng Tek (UCSI University, Kuala Lumpur, Malaysia)
	3	Invited Talk <i>Preserving UNESCO World Heritage Sites in MINECRAFT Digital Gaming Tool: A Competition-based Learning</i> by Pang Yee Jien (Kolej Tingkatan Enam Tun Fatimah, Melaka, Malaysia)
	4	<i>Impact of Mindfulness: A perspective of Teachers of DoE</i> by Aashish Jain
	5	<i>Generation Z Consumers' Green Food Consumption Intention</i> by Randall B. Pasco
	6	<i>Maintenance Management Practices on Building and Building Facilities of the Philippine Postal Corporation</i> by Reynaldo Cadano
	7	<i>The Impact of Training and Development Programs on Employees' Performance: Case of business process outsourcing Company in the Philippines</i> by Joyce A. Coronacion
	8	<i>Impact of Using Blended Learning Platforms Delivering Education as Perceived by the Students in the Higher Education Institutions (HEIs) in Santa Cruz, Laguna, Philippines</i> by Adoree A. Ramos
Group Photo followed by Networking High Tea		10:55 AM – 11:30 AM

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12 th November 2022 (Malaysia Standard Timings (+8:00 GMT))	
G	SESSION IV: Session Chair: Dr. R. Kumar, SRD (Online Presentations, Parallel Session)
1	Session Overview by Dr. R. Kumar
2	Invited Talk Reforming education in the pandemic age: Implementing EdTech Technique to cultivate lifelong learners through effective teaching by Dr. Gunjan Jain (Westminster International University in Tashkent, Uzbekistan)
3	Invited Talk Augmented Reality in Education by Dr. Nelson (SMK Pondok Upeh, Balik Pulau, Penang, Malaysia)
4	Security Architecture and Applications: Blockchain Perspective by Neha Yadav
5	A Systematic review on 4D printing Technology by Archita Singh
6	A performance of Convolutional Neural Network (CNN) through GoogLeNet in prediction of Diabetic Retinopathy by Nayantbbai Soni
7	Integrating IoT with Cloud Computing and Big Data Analytics: Security Perspective by Swati Arya
8	NB-IoT: Transitioning from IoT to an Eco-Friendly IoT Approach by Kritti Jaiswal
9	Reinforcing Li-ion Batteries with Electrochemical Impedance Spectroscopy by Swati Arya

11:00 AM – 12:30 PM

11:00 AM – 11:05 AM

11:05 AM – 11:15 AM

11:15 AM – 11:30 AM

11:30 AM – 11:40 AM

11:40 AM – 11:50 AM

11:50 AM – 12:00 Noon

12:00 Noon – 12:10 PM

12:10 PM – 12:20 PM

12:20 PM – 12:30 PM

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H	SESSION V: Session Chair Dr. Gunjan Jain, Westminster International University, Tashkent, Uzbekistan (Online Presentations, Parallel Session)	11:20 AM – 02:05 PM
1	Session Overview by Dr. Gunjan Jain	11:20 AM – 11:30 AM
2	Study on Factors Affecting Electric Vehicle (EV) Purchase in India by P Neupane	11:30 AM – 11:40 AM
3	Assessing the Impact of Digital Inbound Marketing on 2-Wheeler Buying Behaviour in Digitally Enabled India after the COVID-19 Pandemic by Siddhant Agrawal	11:40 AM – 11:50 AM
4	A Study of Digitization and Gamification in Banking Sector by Arka Ghosh	11:50 AM – 12:00 Noon
5	The Attitude of Gen Z and Gen Y Towards Adoption of Electric Vehicles by Prashausa Gupta	12:00 Noon – 12:10 PM
6	Developing Modern Day Ideation Systems: A Digitized Approach for Enhanced Workforce Engagement Using Gamification in the Indian Textile Industry by Shivank Sharma	12:10 PM – 12:20 PM
7	Social Media - Impact on Consumer Behavior by Kartik Bansal	12:20 PM – 12:30 PM
8	Online Retail - Impact Analysis on Customers by Arpit Mishra	12:30 PM – 12:40 PM
9	Impact of Digital Marketing and social media on Consumers by Poojitha S Nayak	12:40 PM – 12:50 PM
10	Opinion of Distributors on the Smart Supply Chain of FMCG Industry by Arpita Sharma	12:50 PM – 01:00 PM
11	Growth and Penetration of Digital Payments in India: Regional Analysis by R Khatwani	01:00 PM – 01:10 PM
12	Factors Affecting the Behavioural Intention to Consume OTT Video Streaming Services in Indian College Student Community by N. Sharma	01:10 PM – 01:20 PM
13	Image Comprehension and the Emotional Response to Film Editing by Dharmendra Chavan	01:20 PM – 01:30 PM
14	Simple Way to Achieve Inner-Health with Manache Shlok: A Machine Learning Way by Preeti Mulay	01:30 PM – 01:40 PM
15	Study of Challenges in Agile Software Development Practices in Non-Government Organizations in India by Madhup K Gaudha, Chetan Chaudhari	01:40 PM – 01:50 PM
16	Digital Brand Transformers and Digital Engagement in Indian Pharmaceutical Industry during COVID 19 by Noopur Rai	01:50 PM – 02:00 PM
17	<i>Vote of Thanks</i> by Dr. Rohit Kholher	02:00 PM – 02:05 PM

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I	VALIDICTORY SESSION	03:00 AM – 03:35 PM
1	Welcome and Introduction of Valedictory Keynote Speaker	03:00 PM – 03:05 PM
2	Valedictory Keynote Address Dr. Mohd Rozli Ismail (Institute Teacher Education Kota Bharu Campus, Ministry of Education, Malaysia)	03:05 PM – 03:25 PM
3	Best Papers Award declaration by Prof. R. C. Singh	03:25 PM – 03:30 PM
4	<i>Vote of Thanks</i> by <i>Dr. Rohit Khokher</i>	03:30 PM – 03:35 PM

12 th November 2022 (Malaysia Standard Timings (+8:00 GMT))		
J	CULTURAL EVENING: GLOBAL HARMONY	
1	<i>Chinese Dance</i> (By Chia Yee Kin, Teng Ru Ting, Pok Hui Ning, Celine Ho Joe Xuen, Kiew Shi Ping)	
2	<i>Indian Dance</i> (By Bramakumari A/P Rajasegar, Premilla A/P Soorian, Shivanisti A/P Ramachandran, Samula A/P Moorthy, Anjali Padmanathan)	
3	<i>Malay Dance</i> (By Nuraisyatul Humairah Binti Mohd Radzi, Ainni Firzanah Binti Muthamad Badli Shara, Nurul Kamilia Binti Muhaamad Rashidi, Yasmeen Soraya Bt Jasni Adlie)	04:00 PM – 05:00 PM
4	<i>Sabahan Dance - East Malaysia Dance</i> (By Eliz Evelisa Lamit, Clarice Yugarang @ Sylvester, Richweena Rodin, Madelyn Louson)	
5	<i>Philippines group Dance</i>	
6	<i>Indian Performance</i>	
7	Felicitation of Dr. Khoo Bee Lee (IPG College, Malaysia) and Performers	05:00 PM – 05:10 PM
8	Group Photo followed by High Tea	05:15 PM

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