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Abstracts Collection

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Volumen XXI

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SERRUDO-GONZALES, Javier

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International Conference Science, Technology and Innovation

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Diciembre 12, 2024.

Preface

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CDMX. Diciembre 12, 2024. Serrudo-Gonzales, Javier BsC.

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Physical and Mathematical Sciences and Earth Sciences

Classical methods used for predicting temperature as a relevant variable of climate change

Métodos Clásicos utilizados para la predicción de la temperatura como variable relevante del cambio climático

ALARCÓN-RUIZ, Erika, GONZÁLEZ-BARBOSA, Juan, FRAUSTO-SOLÍS, Juan and RANGEL-GONZÁLEZ, Javier Alberto

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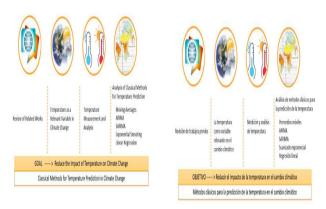
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Abstract

Temperature prediction has become a very important área of research in the context of climate change. Classical prediction methods have been highlighted as fundamental tools to address this problem. This work includes a state of the art on temperature prediction as an important variable of climate change, where we seek to identify the strengths and limitations of the methods used such as moving averages, ARIMA, SARIMA, exponential smoothing and linear regression. These methods continue to be valuable tools in temperature prediction, providing a solid basis for analysis and decision making in meteorology and other climate-related areas.



Climate change, Temperature analysis, Related works, Classical methods

Mango solar dryer prototype design with temperature and humidity control system with bluetooth monitoring

Diseño de prototipo de secador solar de mango con sistema de control de temperatura y humedad con monitoreo vía bluetooth

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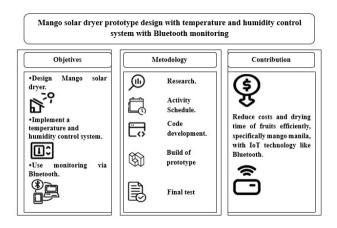
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Abstract

Mango is a fruit that is produced in the southeast of Mexico. To preserve the product, it is necessary to keep it refrigerated and this increases the sales price due to the high electricity consumption. An alternative to taking advantage of this fruit is to dehydrate the pulp, taking advantage of This way the product is not wasted. There are solar dryers where the fruits do not require electrical energy and their conservation is at a very low cost. In this document, the implementation of a project to dry the mango fruit taking advantage of solar energy is presented with evidence so that its temperature and humidity can be monitored via Bluetooth. For this purpose, sensors were adapted with the support of hardware and software. used an Arduino uno board. In the end it is shown that the project has been functional, being an alternative in reducing costs, drying and efficiency.



Arduino Uno, Prototype, Solar dry

Development of a prototype of a natural disaster prevention system using the Arduino platform

Desarrollo de un prototipo de un sistema de prevención de desastres naturales utilizando la plataforma Arduino

ECHANDI-PACHECO, Rodolfo and CARIDAD-ESTRADA, Marco

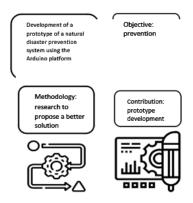
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Abstract

Nowadays, new forms of innovation are constantly sought in the technological field to face the new needs that, we as a society, encounter on a daily basis. The main objective of this project is to help communities where prevention is essential due to their geographical location that makes them more vulnerable to this type of natural disasters and thanks to technologies like Arduino it is easier to find the solutions that our society needs. Arduino allows the installation and configuration of multiple sensors such as ultrasonic, pulse and temperature, among others, which means that the system can be placed on bridges that cross rivers, providing an important solution for communities in the face of natural disasters.



CVU CONAHCYT ID: 2068771

Arduino, Sensors, Prototype

Harnessing low-temperature geothermal resources in the state of Jalisco, Mexico

Aprovechamiento de la geotermia de baja temperatura en Jalisco, México

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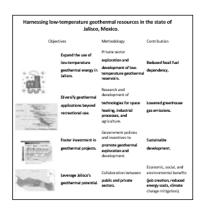
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Abstract

Despite Jalisco's rich geothermal resources, its low-temperature energy has primarily been used in recreational facilities like spas. However, the state offers significant potential for a broader range of applications, including space heating, industrial processes, and agriculture. While the Federal Electricity Commission has focused on high-temperature reservoirs for electricity generation, the potential of low-temperature geothermal energy has been largely overlooked. Although the private sector has begun exploring this resource, its involvement remains limited. Jalisco possesses substantial reserves of both high and low-temperature geothermal energy. Harnessing this energy can contribute to reducing fossil fuel dependency, lowering greenhouse gas emissions, and fostering sustainable development. Its utilization can yield economic, social, and environmental benefits, such as job creation, reduced energy costs, and climate change mitigation.



Low-temperature geothermal energy, Jalisco, Potential

Medicine and health sciences

Emotions perceived by Mayan women during the perinatal period

Emociones percibidas por mujeres Mayas durante el periodo perinatal

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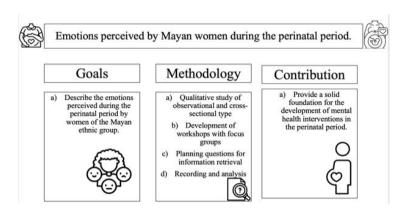
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Abstract

Attention to emotional disorders during the perinatal stage is a crucial aspect; during this period, the mother experiences a series of significant changes that can influence her well-being and, therefore, that of the newborn. Appropriate detection and treatment of emotional disorders, such as perinatal depression and anxiety, are essential to ensure a healthy environment. The objective of this study was to describe the emotions perceived during the perinatal period by women of the Mayan ethnic group. This analysis is essential to better understand emotional experiences and provide a solid foundation for the development of mental health interventions. We sought to identify the predominant feelings, when faced with questions related to their emotions and actions in certain situations. Finally, it was possible to obtain proposals from the Mayan community, which reflected their main needs for the well-being of their mental health.



Perinatal, Psychological, Detection

Humanities and Behavioral Sciences

Tourism Education of the Future: Viability and Relevance of a Blended Learning Modality

Educación Turística del Futuro: Viabilidad y Pertinencia de una Modalidad Mixta

AGRAZ-LÓPEZ, María Celina, RAMÍREZ-JIMÉNEZ, Armando, ZEPEDA-MARTÍNEZ, Gabriel and LÓPEZ-MURILLO, Jorge Hammurabi

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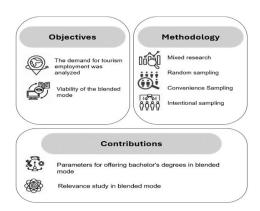
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Abstract

The relevance and feasibility studies are essential to ensure the quality and relevance of educational programs. These analyses are crucial to align curricula with societal needs. Relevance focuses on meeting environmental expectations, while feasibility addresses financial and operational aspects to maintain high-quality programs. In the specific case of the Bachelor's Degree in Tourism in a mixed mode, the viability and relevance of the academic program were evaluated by combining face-to-face and online elements. The methodology used was systematic, empirical, and critical, employing quantitative and qualitative data. The results highlighted the growing importance of mixed mode in higher education, offering flexibility to students and meeting high demand. This study supports the implementation of the Bachelor's Degree in Tourism in a mixed mode at the Autonomous University of Nayarit, demonstrating its relevance and feasibility.



Curricula, Implementation, Viability

Intimate partner violence among LGBT+ university students

Violencia de pareja en universitarios de la comunidad LGBT+

GALDÁMEZ-VÁZQUEZ, Selene and HERNÁNDEZ-GORDILLO, José Luis

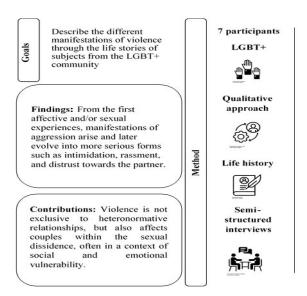
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Abstract

The present article describes the different dynamics present in romantic relationships through life stories. Adopting a qualitative approach, it retrieves the experiences of 7 participants belonging to the LGBT+ community regarding their romantic relationships through individually conducted semi-structured interviews. The results reveal that from the early romantic and/or sexual experiences, manifestations of aggression arise and then evolve into more serious forms such as intimidation, harassment, and distrust towards the partner. This suggests that violence is not exclusive to heteronormative relationships but also affects couples within sexual dissidence, often in a context of social and emotional vulnerability.



Intimate partner violence, LGBT+, Homonormativity

Social Responsibility: a commitment of Higher Education institutions

Responsabilidad Social: un compromiso de las instituciones de Educación Superior

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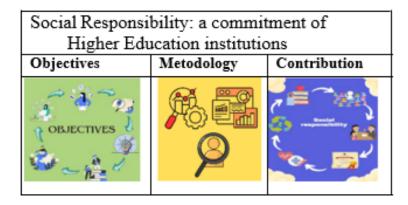
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Abstract

This article addresses the importance of the criterion of commitment to social responsibility in higher education, highlighting the essential form of which it is a part. It focuses on the methodology used in an analysis carried out in a Higher Education Unit in Northern Mexico, evaluating academic programs through the criteria set forth by the National System for the Evaluation and Accreditation of Higher Education (SEAES) in terms of commitment to social responsibility. The results reveal that the strongest point is the Master's level programs, standing out for the number of programs related to the field of social responsibility. This analysis concludes by revealing the relevance of the commitment to social responsibility in higher education degrees.



Commitment, Social Responsibility, Academic Programs

Behavioral addictions in different addictive disorders and their influence on Higher Education

Adicciones de comportamiento en diferentes trastornos adictivos y su influencia en la Educación Superior

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Abstract

The high use of mass media and video games has strongly attracted the attention of the actors involved in education, questioning the influence that different uses of ICT can present and affect students to the extent of creating a behavioral addiction, if they are aware of its impact and if they negatively influence the learning capacity of students, reflected in the high rate of failure and/or dropout, the objective of this research. After analysis and design, a survey (Cronbach's 0.9434) was applied to undergraduate students of Tecnológico Nacional de México (TecNM), of Engineering: Biochemistry, Computer Systems, Electrical and Industrial, to know their opinions, if there is any addictive behavior of the use of the Internet and the video games and if they consider that they affect their academic performance; The responses indicate a minimal influence that the use of the Internet affects their academic performance and therefore failure and desertion.



Addictions, Disorders, Education Resumen

Educational innovation: an approach to the japanese Kaizen method in university students. Reflections and perspectives

Innovación educativa: un acercamiento al método japonés Kaizen en los estudiantes universitarios. Reflexiones y perspectivas

CARRILLO-BELTRÁN, Julio César Cuauhtémoc, RAMÍREZ-JIMÉNEZ, Armando, LLANOS-RAMÍREZ, María del Carmen and BOGARIN-CORREA, María Romelia

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Abstract

The article explores the implementation of the Kaizen method in a Mexican university educational context. The research, conducted at a public university, focused on 174 students from different semesters of bachelor's degrees in administration, Accounting, Marketing, and International Business. The main objective was to analyze the influence of Kaizen on the development of learning skills and the improvement of academic performance. The research was based on a survey conducted through Google Forms, to collect information about students' perceptions of the Kaizen method. The results revealed that the method had a positive impact on student motivation and participation. Increased individual responsibility for learning was observed, as well as an increase in collaboration and the search for joint solutions to problems. Students emphasized the importance of the focus on continuous improvement and the importance of constant feedback for the development of their abilities. However, some difficulties were also identified, such as the need for greater support from teachers to implement the method effectively. Therefore, the Kaizen method presents significant potential to improve the quality of university education in Mexico. Its integration into study programs is recommended, with a focus on teacher training and the development of strategies to facilitate its implementation and ensure its effectiveness.

Objectives	Methodology	Contribution
The main objective of the research was to analyze the influence of the Kaizen method on the development of learning skills and the improvement of academic performance among university students, aiming to determine its impact on the quality of higher education.	A survey was conducted through Google Forms to gather information on students' perception of the Kaizen method, applied to 174 students from various university majors. This quantitative approach, relying on numerical data, allowed for the analysis of students' generalized opinion regarding the Kaizen method	This study offers a valuable model for other Mexican universities seeking to enhance the quality of their education. By revealing the significant potential of the Kaizen method, it highlights the crucial need to train teachers and develop strategies to ensure the effective implementation of this approach in the educational setting.

Collaboration, Kaizen, Learning, Motivation

Students' perceptions of agenda 2030 and its impact on higher education

Percepción de los estudiantes acerca de la agenda 2030 y su impacto en la educación superior

CARRILLO-BELTRÁN, Julio César Cuauhtémoc, LLANOS-RAMÍREZ, María del Carmen, RAMÍREZ-JIMÉNEZ, Armando and BOGARIN-CORREA, María Romelia

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Abstract

The article presents a study conducted with 155 students from the Academic Unit of Accounting and Administration (UACyA) of the Autonomous University of Nayarit, exploring students' perceptions of the 2030 Agenda for Sustainable Development. A descriptive quantitative approach was employed, using a survey administered to students from different semesters and analyzing the data through descriptive statistics. The research aims to determine the level of knowledge, attitudes, and expectations of students regarding the 2030 Agenda. While most students understand the importance of the 2030 Agenda and its impact on the future, there is a gap between their perception and the actual integration of the SDGs into their study plans. The lack of a consistent focus on the SDGs hinders students' preparedness to contribute practically to sustainable development. Greater integration of the SDGs into university research is required, promoting collaboration between the UACyA, governments, and international organizations to holistically address global challenges. To ensure that future generations are equipped to contribute to a sustainable future, the UACyA must adopt a proactive approach, including the SDGs in study plans, promoting research and experiential learning, and raising awareness about the 2030 Agenda. This study suggests the need to implement strategies that promote the understanding and application of the 2030 Agenda in higher education.

Objectives	Methodology	Contribution
The main objective of the research: This study aims to understand the perception of UACyA students regarding the 2030 Agenda for Sustainable Development, assessing their knowledge, attitudes, and expectations regarding the SDGs and their impact on	This study used a quantitative approach, applying a survey to 155 students from the UACyA in different semesters. The survey collected numerical data on the perception of the 2030 Agenda, allowing for statistical analysis. This allowed for objective data on student knowledge and expectations regarding the SDGs, facilitating a precise	This study highlights the importance of integrating the 2030 Agenda into higher education, promoting the understanding and application of the SDGs in curricula, research, and the training of future professionals. It is essential that universities take a proactive role in promoting sustainability, preparing new generations to

2030 Agenda, Higher Education, SDGs, Sustainable Development

Good practices of social responsibility for promoting sustainable development goals from the university: a case study

Buenas prácticas de responsabilidad social para la promoción de los objetivos de desarrollo sostenible desde la universidad: caso de estudio

ROJO-CARLÓN, José María, RIVERA-IRIBARREN, Maricel and VALENCIA-ROMERO, Alexia Zoe

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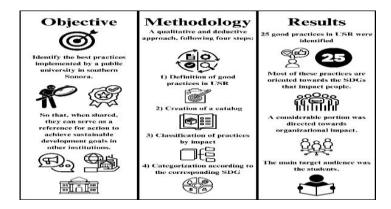
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Abstract

The transformative role of universities is key to their contribution to sustainable development and the fulfillment of the UN's 2030 Agenda. University Social Responsibility, as an ethical impact management policy, promotes the implementation of good practices that have a positive impact in the formative, cognitive, social, and organizational domains. These practices enable the observation and promotion of the Sustainable Development Goals (SDGs). This article aims to identify the social responsibility good practices that affect the SDGs in a public university in southern Sonora, Mexico. The method used was qualitative and deductive, following four steps: 1) defining good USR practices, 2) developing a catalog of good practices, 3) classifying the practice based on its impact, and 4) categorizing it according to the SDG it addresses. The main results show that a significant portion of these practices focus on SDGs related to people and are primarily directed at the university's internal stakeholders



University Social Responsability, Good Practices, Sustainable Development

Students' perceptions towards blended learning modality after COVID-19 pandemic: a case study

Percepciones de los estudiantes respecto a la modalidad mixta posterior a la pandemia de COVID 19: un estudio de caso

FLORES-GONZÁLEZ, Norma, FLORES-GONZÁLEZ, Efigenia, CASTELÁN FLORES, Vianey and ZAMORA-HERNÁNDEZ, Mónica

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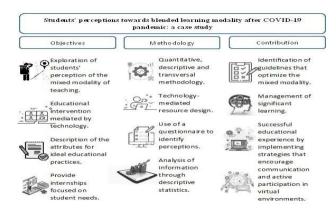
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Abstract

The research explores the students' perception of the Blended learning modality to describe its attributes to facilitate decision-making in favor of good educational practices at the higher level. A quantitative, descriptive, and cross-sectional methodology was used based on a perception questionnaire applied to 60 students immersed in the modality under study. The results indicate that students value its usefulness, effectiveness, ease of use, and benefits such as flexibility, accessibility, updated, personalized and multiformat learning. The conclusions indicate that the educational experience is successful if strategies are implemented to encourage communication and active participation in virtual environments. This study contributes to identifying guidelines that optimize the blended modality to promote meaningful learning and offers guidelines for teachers' appropriate practice implementation that responds to the needs of students



Attributes, Blended learning modality, Perceptions

Improvement of urban spaces, towards a sustainable habitat. BUAP Residential Case, Puebla, Puebla

Renovación de los espacios urbanos, hacia un hábitat sustentable. Caso Residencial BUAP, Puebla, Puebla

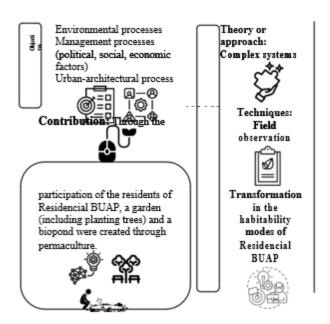
ALONSO-PÉREZ, Carlos

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Abstract

The BUAP residential subdivision, located in the southern area of Puebla, Mexico, currently has several plots of land with serious contamination problems due to lack of intervention. This, in addition to the fact that the interior spaces of the homes are very small and there is not enough green and recreational areas for residents to develop their physical and motor activities, in addition to the fact that there is no integration between neighbors to solve these problems. The research will contribute to the improvement of urban spaces that will function as an extension of the homes to generate a sustainable habitat, through the participation of the same settlers. Based on a methodology, theories or approaches from various authors that support this type of approach will be known, in addition to doing the field research work through the observation process and qualitative research so that the conclusions are finally presented.



Sustainability, Habitability, Urban

Exploration of teachers' perceptions in tourism programs: a quantitative study with a temporal focus

Exploración de las percepciones docentes en programas de turismo: un estudio cuantitativo de corte temporal

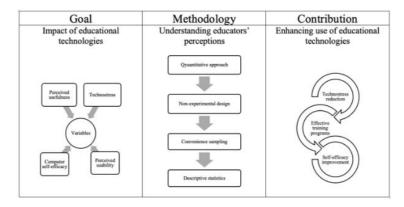
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Abstract

This quantitative study, of a non-experimental design and descriptive scope, investigated the perceptions of tourism educators regarding the use of educational technologies in their teaching practice. Digital questionnaires were employed to analyze four key variables: perceived usability, perceived usefulness, technostress, and computer self-efficacy. The results revealed a mean score of 3.17 for perceived usability and 3.50 for perceived usefulness, indicating that educators find technology easy to use and believe it enhances their performance. Although technostress was low (mean score of 1.30), computer self-efficacy had a mean of 3.04. It is concluded that while educators are open to using technology, ongoing training is recommended to strengthen their self-efficacy and address potential barriers to effectively utilizing educational tools.



Teachers' perceptions, ICT, Tourism

Detection of training needs for university teachers in the Area of Economic-Administrative Sciences: A study at the Autonomous University of Nayarit

Detección de necesidades de capacitación de los docentes universitarios en el Área de Económicas-Administrativas: Un estudio en la Universidad Autónoma de Nayarit

GÓMEZ-CAMPOS, Sinahí Gabriela, FÉLIX-PÉREZ, Sirigui Garibeth, GRANADOS-MAGAÑA, Javier Alejandro and MALDONADO-BERNAL, Mónica del Rocío

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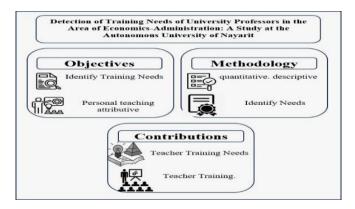
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Abstract

This article aims to identify the training needs of faculty members in the economics-administrative area at the Autonomous University of Nayarit through a census applied to 82 professors. A quantitative approach was employed, using a descriptive and cross-sectional design with a validated questionnaire that measured general and specific competencies in various academic areas. The instrument demonstrated high reliability, with a Cronbach's alpha coefficient of 0.89. The results highlight a significant need for training in digital tools (65%) and innovative pedagogical strategies (58%), as well as specialized areas such as digital marketing, international trade, and financial standards, depending on the discipline. Additionally, 60% of the professors expressed interest in receiving training in advanced analytical technologies. The preference for online courses and in-person workshops, with a biannual frequency, underscores the importance of implementing training programs tailored to the specific demands of each area.



Teacher training, Training needs, Higher education, Autonomous University of Nayarit, Professional development

Promoting gender equality through experiments with water rockets in distance physics class between the Technological University of Jalisco, Mexico and the Technological University of Bolívar, Colombia

Fomentando la equidad de género a través de cohetes de agua en clase de física a distancia entre la Universidad Tecnológica de Jalisco, México y la Universidad Tecnológica de Bolívar, Colombia

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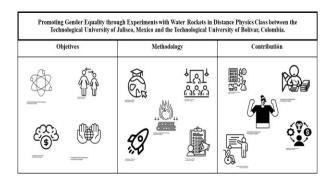
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Abstract

This article presents a study on the promotion of gender equality in distance learning physics, using experiments with water rockets as a pedagogical tool. A collaboration was carried out between the Technological University of Jalisco in Mexico and the Technological University of Bolívar in Colombia. Through this research, we seek to identify how the implementation of practical activities can influence the participation and interest of students of different genders in the field of physics. The results of the applied methodology are presented, as well as the implications of these findings for future educational practices.



STEAM, Water rocket, Gender equality

Resilient family constructs and beliefs in the face of the diagnosis of two members with disabilities

Constructos y creencias familiares resilientes ante el diagnóstico de dos integrantes con discapacidad

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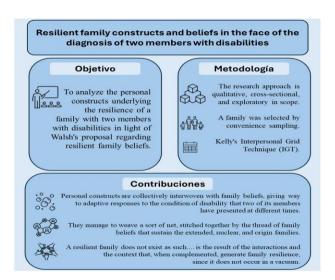
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Abstract

Conducting a study about resilience in a family with two members with disabilities may involve carrying out an exploration of the personal constructs of each member of the family, and in some way permeating their responses to that condition. The present work is qualitative research carried out with the objective of analyzing the personal contracts underlying the resilience of a family with two members with disabilities in light of the proposal of Walsh regarding resilient family beliefs. The analysis of these information has allowed in the present work to identify these dichotomous constructs that underlie the resilience of this family, which provide a rich and profound information about how in each of its members act the constructs that allowed them as a family Resiliently addressing disability.



Constructs, Disability, Resilience

Pre-post intervention evaluation of training in knowledge and practices in psychological first aid for teachers university tutors

Evaluación pre-post intervención de formación en conocimientos y prácticas en primeros auxilios psicológicos a docentes-tutores universitarios

PÉREZ-PIMIENTA, Diana, RUIZ-BERNÉS, Salvador, ESPINOZA-ROMO, Alejandra Viridiana and ARGÜERO-FONSECA, Aimée

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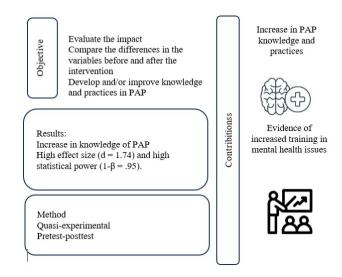
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Abstract

This quasi-experimental pretest-posttest study evaluated the impact of a Psychological First Aid (PAPs) course-workshop on the knowledge and perceptions of 100 tutors from a Public University in Mexico. The participants, 60 women and 40 men from various academic areas, completed questionnaires before and after the intervention. The results indicated a significant increase in knowledge of PAPs, with a high effect size (d = 1.74) and high statistical power ($1-\beta = .95$). In addition, significant improvements were observed in the perception of the importance and training in PAPs, as well as in the perception of the integration of the gender perspective, although with a smaller effect size in this last aspect. The findings underline the need for continuous and specialized training for tutors, especially on mental health issues and gender perspective.



Assessment, Tutors, University, Mental Health

Social Sciences

Social innovation

Innovación Social

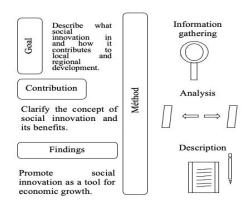
ZAPATA-AGUILAR, José Apolinar

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Abstract

Social Innovation is the strategy that allows solutions to the problems experienced in a community, with a sustainable approach that is financially viable, that strengthens the social fabric, and is friendly to the environment. In the present theoretical analysis, it was found that given population growth, it is required today more than ever that social innovation be channeled towards the solution of problems that contribute to the provision of physical and mental health of people, providing them with resources, that allow them a sense of responsability with the society and the environment where they live. Social innovation offers a new way of envisioning economic growth, where people are the axis of a social transformation with a human meaning.



Innovation, Sustainable, Economy

Statistical representation of university management as a means for sustainable development in connection with the productive sector

Representación estadística de la gestión universitaria como medio para el desarrollo sustentable en vinculación con el sector productivo

HERNÁNDEZ-PERALTA, Alejandro De Jesús, ANTONIO-VIDAÑA, Paula Rosalinda, ALCUDIA-CHAGALA, Lorena and ROJAS-PATIÑO, Nancy

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2nd Coauthor: *Lorena, Alcudia-Chagala* / © ORC ID: 0000-0003-1912-1622, © Researcher ID Thomson: KPH-3569-2024, © CVU CONAHCYT ID: 367120

3rd Coauthor: *Nancy, Rojas-Patiño* / [©]ORC ID: 0000-0001-8838-4122, [©] Researcher ID Thomson: KOD-5728-2024, [®] CVU CONAHCYT ID: 310648

productive sector. Methodology Objectives Contributions methodological With the analysis of objective of this study is results it allowed the process argument of scenarios of the use statistical tools Knowledge of that estimate the effects of AST industrial advisors the link made and competency model. by the HEIs with the productive sector, on the impact on Lack of knowledge of the AST industrial development. advisors and the competency model Ø

Statistical representation of university management as a means for sustainable development in connection with the

Sustainability, MSMEs, Linkage, AST, Logit model

Strategic optimization: redesign of internal processes in international bulk companies

Optimización estratégica: rediseño de procesos internos en empresas graneleras internacionales

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TecNM/ITS of Naranjos

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Abstract

This research aims to redesign the surveillance and scale processes of an international bulk company, with the aim of streamlining and improving them. The DMAIC Methodology was systematically applied at each stage from a structured approach that improved and optimized existing internal processes, clearly establishing the problem and objectives of the redesign to subsequently collect and analyze necessary information, establishing key measurement metrics that evaluated the success of the redesign. Once the causes and areas for improvement were identified, solutions were developed and changes were implemented in the structure of the processes. The results obtained were the redesign of the company's internal surveillance and scale processes with optimized times of 44 and 77 minutes respectively, obtaining a difference of 25 to 33 minutes, allowing the company to carry out a total of 900 loads per month in 28 minutes. per unit load.



Process Redesign, DMAIC Methodology, Optimization

Partial administrative audit of a bus company dedicated to the foreign transport of passengers with a branch in the State of Veracruz

Auditoria administrativa parcial a una empresa de autobuses dedicada al transporte foráneo de pasajeros con sucursal en el Estado de Veracruz

BALDERRABANO-BRIONES, Jazmín, SOLORZANO-RIOS, María Judith, UTRERA-VELEZ, Youssef and RODRIGUEZ-AGUSTIN, Griselda

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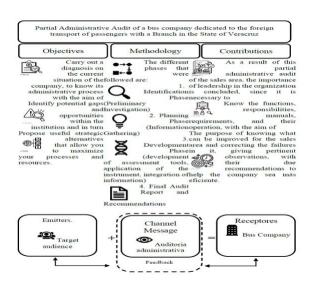
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Abstract

In this research work, a partial administrative audit was carried out, that is, only the sales area of a bus company dedicated to the foreign transport of passengers with a branch in the State of Veracruz was audited. A descriptive and documentary field research is carried out; this is through instruments, and interviews with the Departments of Zone Manager, Sales Leader, and Sales Consultant. Subsequently, a diagnosis is implemented, which allows all the information obtained through interviews and surveys to be analyzed and classified. Based on the results obtained, it was discovered that it is a leading company in the area, which has quality and trained personnel. The sales area has established manuals and programs, the policies are in accordance with and complied with by the staff. However, there are many failures due to the lack of application of the administrative process, since despite knowing the mission, vision and objectives, only half of the staff is 100% committed to its fulfillment.



Administrative, Deficiencies, Development

Analyzing the effectiveness of graduate competencies at the Polytechnic University of Zacatecas

Análisis de efectividad de las competencias de los egresados de la Universidad Politécnica de Zacatecas

LARA-TORRES, Claudia Guadalupe, VELÁZQUEZ-MACIAS, Jesús, GONZÁLEZ-HERNÁNDEZ, José Roberto and GUIRETTE-BARBOSA, Omar Alejandro

Universidad Politécnica de Zacatecas

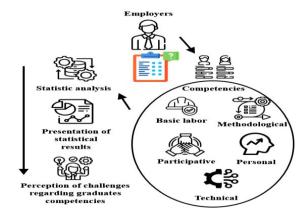
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Abstract

This article discusses the results of the evaluation of graduates' competencies from the UPZ academic programs, taking into account the opinions and perceptions of employers or companies. The present research reviews the literature on the concept of competency and its dimensions, establishes study variables, describes the methodology used, and presents the results through statistical techniques such as Spearman's Rho, Mann-Whitney U, and Kolmogorov-Smirnov tests. Together, these techniques allow for an understanding of the achieved results and contribute to the improvement of educational quality.



Employer, Graduate, Competencies, Evaluation

Transforming learning: Exploring the frontiers of educational innovation in the 21st Century

Transformando el aprendizaje: Explorando las fronteras de la innovación educativa en el Siglo XXI

RUÍZ-VALDÉS, Susana, RUÍZ-TAPIA, Juan Alberto and CRUZ-SOLÍS, Ivette del Rosario

Universidad Autónoma del Estado de México

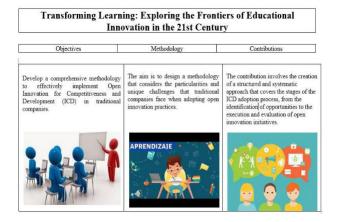
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Abstract

The objective of this research is to develop a comprehensive methodology to effectively implement Open Innovation for Competitiveness and Development (ICD) in traditional companies. The aim is to design a methodology that considers the particularities and unique challenges that traditional companies face when adopting open innovation practices. The contribution involves the creation of a structured and systematic approach that covers the stages of the ICD adoption process, from the identification of opportunities to the execution and evaluation of open innovation initiatives.



Business growth, Improve competitiveness, Open innovation

Innovation, culture and crafts, a triad for the development of handicraft companies in San Antonino Castillo Velasco, Oaxaca

Innovación, cultura y artesanías, trinomio para el desarrollo de las empresas artesanas de San Antonino Castillo Velasco, Oaxac

PABLO-CALDERÓN, Karla de los Ángeles, CASTILLO-LEAL, Maricela, CRUZ-CABRERA, Blasa Celerina and CRUZ-GARCÍA, Leobardo Daniel

National Technological Institute of Mexico

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Abstract

Innovation is a business tool that promotes the growth and development of business models; some artisan companies resist applying it to maintain and preserve their culture without altering products with a high sense of community identity. Globalization, new technologies, competitiveness and market saturation are environmental factors that affect the development of artisan companies, given this, innovation can be an opportunity for them. This article aims to develop a comparative analysis of the results provided by the application of innovation in the artisan companies of San Antonino Castillo Velasco, Oaxaca, Mexico, as well as to determine the levels of the variable that these companies have in the community, the The methodology used for the study is mixed using techniques such as observation, interviews and application of questionnaires.

Innovation, culture and crafts, a triad for the development of			
handicraft companies in San Antonino Castillo Velasco, Oaxaca.			
Objective	Methodology	Contributions	
Compare the	Mixed approach to	The study	
application and	non-experimental	determines the	
benefits of	descriptive-	benefits of applying	
innovation in	comparative	innovation in the	
artisan companies	research.	craft sector and	
in San Antonino		some of its forms of	
Castillo Velasco,		manifestation in the	
Oaxaca.		same.	

Innovation, Cultural identity, Handicrafts

Bibliometric analysis for the identification of innovation factors as a growth methodology for SME's

Análisis Bibliométrico para la identificación de factores de innovación como metodología de crecimiento de las PYME

MUÑOZ-PALACIOS, Luz del Carmen, ANTONIO-VIDAÑA, Paula Rosalinda, CRUDET-BALDERAS, Juan Carlos and AGUILAR-HERRERA, Doris

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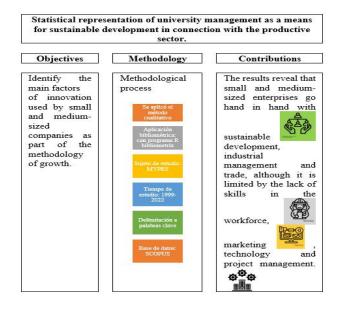
1st Coauthor: *Paula Rosalinda, Antonio-Vidaña /* ^⑤**ORC ID:** 0000-0002-1175-0611, ^⑤**Researcher ID Thomson**: HDN-0577-2022, **⑥CVU CONAHCYT ID**: 673436

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3rd Coauthor: *Doris, Aguilar-Herrera* / ORC ID: 0000-0001-5660-0150, Researcher ID Thomson: KYP-7143-2024, CVU CONAHCYT ID: 909724

Abstract

The objective es identify the main factors of innovations used by small and medium sixed companies as part of the methodology of growth and the results reveal that small and medium sized enterprises go hand in hand with sustainable development, industrial and trade, although it is limited by the lack of skills in the workforce.



Sustainability, MSMEs, linkage, AST, Logit model

Reading strategies and their relationship with reading comprehension. Proposal from elementary school

Estrategias de lectura y su relación con la comprensión lectora. Propuesta desde la educación primaria

HERNÁNDEZ-GUTIÉRREZ, Francisco Javier, MAURICIO-RODRÍGUEZ, Estrella Jatziri, LIZARDE-FLORES, Eugenio and REYES-CAMACHO, Ana María

Escuela Normal Rural "Gral. Matías Ramos Santos"

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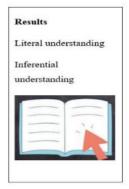
2nd Coauthor: Eugenio, Lizarde-Flores / ©ORC ID: 0000-0001-8387-5651, © Researcher ID Thomson: KCY-4055-2024, ©CVU CONAHCYT ID: 541564

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Abstract

The present research work proposes and designs reading strategies, the aim is to use a qualitative research approach and an action research methodological perspective to intervene and transform the reading comprehension situation of primary school pupils. The results express a relevant and significant relationship between the use of reading strategies and modalities and the improvement of reading comprehension.







Reading strategies, Reading modalities, Reading comprehension

Influence of virtual platforms in the development of English language skills. Case of a Peruvian public university

Influencia del desarrollo de plataformas virtuales en las habilidades de la enseñanza del inglés. Caso de una universidad pública peruana

CONDORI-CHURA, Delia, NIÑO-GUTIÉRREZ, Naú Silverio and FLORES-VARGAS, Sergio Antonio

National University of the Altiplano

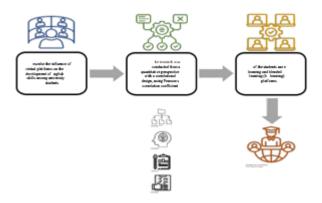
1st Author: *Delia, Condori-Chura* / **OR CID:** 0000-0001-6406-2727

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Abstract

The objective of the study is to describe the influence of virtual platforms on the development of English skills among university students. Methodology: The research was approached from a quantitative perspective with a correlational design, using Pearson's correlation coefficient. The unit of analysis consisted of university students majoring in tourism, selected through non-probabilistic sampling. Results: A linear correlation was identified between the categorical variables by comparing the random probability of the event and the pre-established significance level for the test between both factors, such that when $p \le 0.05$, the null hypothesis of ρ =0 was rejected. It was observed that 33% of the students frequently use e-learning and b-learning platforms. Conclusions: The four English language skills analyzed show significant learning outcomes thanks to the use of virtual platforms.



English learning, Higher education, Virtual platforms

The shortage of medicines as a violation of the human right to health

El Desabasto de medicamentos como violación al derecho humano a la salud

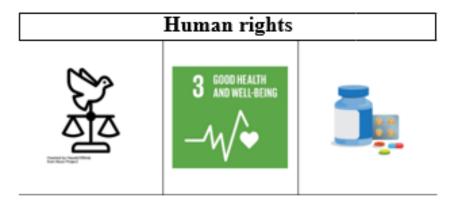
MARTÍNEZ-LARES, Marco Antonio

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Abstract

It is unquestionable that during the last decades the importance of Human Rights has been reaffirmed, as prerogatives responsible for recognizing and protecting the dignity of human beings; Notwithstanding the above, in the case of Mexico there are multiple cases of complaints filed due to constant violations thereof. In this sense, the objective of this investigation is to demonstrate the violation of the human right to health, through the shortage of medicines. The approach used was quantitative, the deductive method, with a descriptive scope of the study and as data collection and analysis techniques, a closed survey was applied and the data obtained was graphed. The results show a high incidence of chronic diseases among those surveyed, exacerbated by the low availability of essential medicines, which is why it is essential to implement policies that ensure the adequate and timely supply of medicines to users of the state health system and, consequently, respect for this fundamental human right.



Law, Human Rights, Health, Medicine shortage

Analysis of learning strategies for subjects of the generic structure of the industrial engineering degree, in a higher education institution in Villahermosa Tabasco

Análisis de estrategias de aprendizaje para asignaturas de la estructura genérica de la licenciatura de ingeniería industrial, en una institución de educación superior en Villahermosa Tabasco

MOREJÓN-SÁNCHEZ, Juana María, JAVIER-GERÓNIMO, Zinath, SIERRA-MOREJÓN, José Luis and ABID-BECERRA, Marco Antonio

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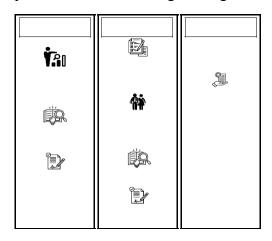
1st Coauthor: Zinath, Javier-Gerónimo / ®ORC ID: 0000-0002-0008-4350, ® Researcher ID Thomson: G-3835-2018, ® CVU CONAHCYT ID: 902663

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Abstract

The objective of this project is to analyze the learning strategies currently used by teachers in spatiality subjects, of the Industrial Engineering Degree, in a Higher Education Institution in Villahermosa Tabasco. A diagnosis will be made, designing an instrument through a Questionnaire, using the Likert scale. The instrument will be applied to Teachers who teach subjects in the Basic Structure. There is a population of 41 teachers in Industrial Engineering, of which there are 25 who are from the Basic Structure, focusing for this study on the Subject of Quality Systems Management of which there are 3 groups. The information will be analyzed immediately. From the results obtained, a proposal for new Learning strategies will be designed that will be of great contribution to improve the teaching-learning process of Industrial Engineering and the Institution.



Learning strategy, Subject, Diagnosis

Distributed educational leadership and collaborative intelligence to promote continuous improvement in public universities of Mexico

Liderazgo educativo distribuido e inteligencia colaborativa para impulsar la mejora continua en las universidades públicas de México

GRANADOS-MAGAÑA, Javier Alejandro, FÉLIX-PÉREZ, Sirigui Garibeth, GÓMEZ-CAMPOS, Sinahí Gabriela and BARBOSA-GUTIÉRREZ, Iris Chantal

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Abstract

The distributed educational leadership (DEL) has emerged as one of the most effective strategies to improve management and academic results in public universities. Combined with collaborative intelligence (CI), this approach allows active participation and decentralized decision-making, involving various actors in the continuous improvement of educational institutions. This article analyzes how the implementation of DEL and CI can influence educational quality in public universities in Mexico, highlighting the relevance of both concepts to address contemporary challenges in higher education. Through a literature review and contextualized analysis, the effects of these approaches on university management, collaboration between teachers and students, and continuous improvement policies are explored.

Objectives	Methodology	Contribution	
Analyze distributed	Literature Review,	Identification of cultural and	
leadership (LED) Explore collaborative intelligence	Contextualized Analysis	structural barriers.	
+ 10	+ *	(m + 1 ² / ₁)	

Distributed educational leadership, Collaborative intelligence, Continuous improvement

"ExpoImagina": a triple helix framework for linking public universities towards social innovation

"ExpoImagina": un marco de vinculación triple hélice de la universidad pública hacia la innovación social

CARBAJAL-MARISCAL, Oscar and HERNÁNDEZ-TINOCO, Araceli

Universidad de Guadalajara

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1st Coauthor: *Araceli, Hernández-Tinoco /* [©] ORC ID: 0000-0002-8420-0530, [©] Researcher ID Thomson: T-6721-2018, [®] CVU CONAHCYT ID: 80799

Abstract

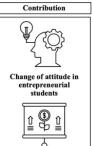
The Universidad de Guadalajara, as a public institution with 232 years of tradition, faces economic and political challenges that affect its academic and research development. Through the "ExpoImagina" event, it has promoted entrepreneurship, linking students with the private sector and municipal governments. Since its inception in 2018, the event has evolved, incorporating conferences, exhibitions and workshops that promote entrepreneurial talent. The collaboration between the university and the Ministry of Rural Development of Jalisco has allowed a significant impact, with thousands of visitors and remarkable economic growth. In addition, the workshops have facilitated the creation of networks between students and professionals, supporting the development of innovative ideas. In short, the university acts as a catalyst for entrepreneurship in the region, providing resources and knowledge that contribute to the well-being of the community.

"ExpoImagina": a triple helix framework for linking public universities towards social innovation.

Objectives Methodology Contribution







Public university, Entrepreneurship, Academic and business connection

The instructor's role in designing the methodological strategy for research in music

El papel del tutor en el diseño de la estrategia metodológica para la investigación en música

JUAN-CARVAJAL, Dargen Tania, JUAN-CARVAJAL, Mara Lioba, RODRÍGUEZ-JUAN, Arién and VDOVINA, María

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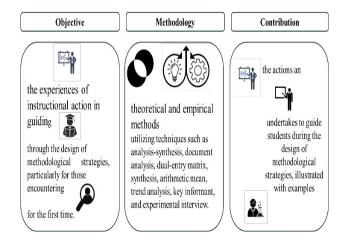
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2nd Coauthor: *Arién, Rodríguez-Juan* / **©ORC ID**: 0000-0003-4923-7431, **© Researcher ID Thomson**: ABL-9039-2022, **© CVU CONAHCYT ID**: 566873

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Abstract

To present the experiences of instructional action in guiding students through the design of methodological strategies, particularly for those encountering the research process for the first time. This study combines theoretical and empirical methods, utilizing techniques such as analysis-synthesis, document analysis, dual-entry matrix, synthesis, arithmetic mean, trend analysis, key informant, and experimental interview. These techniques enabled the identification of the most commonly employed general methods in scientific research within music. The study also synthesizes the instructor's functions and qualities, along with the supervisory actions taken during the research process. This paper recapitulates the functions of research methods in music, highlighting their frequent uses and distinguishing features compared to other types of research. it also provides an exposition of the actions an instructor undertakes to guide students during the design of methodological strategies, illustrated with examples from scientific modeling.



Research methods, tutor-student relationship, modeling-model

The use of cell phones in the development of business activities in rural youths

El empleo de los teléfonos móviles en el desarrollo de las actividades comerciales en los jóvenes de zonas rurales

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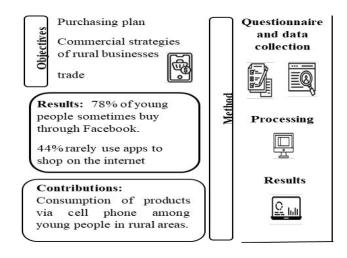
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Abstract

Commercial development has improved with the incorporation of cellular phones in the movement of buying and selling goods online. The objective of this research is to describe the development of commercial and daily activities of young people between 15 and 25 years of age through the use of cell phones in order to learn about the integration of new technologies in rural society. The method is descriptive, non-experimental and cross-sectional. Some results obtained confirm that 44% mentioned that they rarely use apps for online shopping, followed by 39% who mentioned that they sometimes use some apps for online shopping.



Development, Rural, Technology

The lack of terminal efficiency of the students of the 2018-2022 generation of the Faculty of Engineering of the Universidad Autónoma de Campeche

La falta de eficiencia terminal de los alumnos de la generación 2018-2022 de la Facultad de Ingeniería de la Universidad Autónoma de Campeche

TURRIZA-MENA, Roselia Lorena, CANUL-TURRIZA, Román Alejandro, CACH-COBA, Brenda Madelin and QUEJ-COSGAYA, Héctor Manuel

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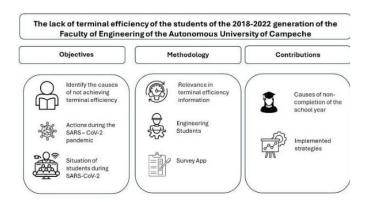
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Abstract

The research addresses academic completion in the Faculty of Engineering of the Autonomous University of Campeche (UAC) during the 2018-2022 generation, especially affected by the COVID-19 pandemic. Despite the reputation of the UAC and its efforts to maintain educational quality, several causes are identified that contribute to low terminal efficiency. A quantitative and descriptive approach was used, surveying 200 students about various factors such as academic support, study conditions, and the effectiveness of online classes. The results indicate that many students faced difficulties such as lack of devices, internet connectivity problems, and loss of family employment, which impacted their ability to complete their studies. In addition, the lack of teaching support and emotional problems were also relevant factors. It is concluded that, despite the UAC's efforts to mitigate the impact of the pandemic, the combination of internal and external factors limited the terminal efficiency of this generation. Possible solutions are suggested to improve the academic situation of students in the future.



Terminal efficiency, Education, Campeche

Gender assessment of teaching work during the pandemic lockdown. The case of a higher education institution in southeastern Mexico

Evaluación por género del trabajo docente durante el confinamiento por la pandemia. El caso de una institución de educación superior en el sureste de México

SANTOS-VALENCIA, Raúl Alberto, BACAB-SANCHEZ, José Rubén, SANCHEZ-MONROY, Miriam and PEREZ-RODRÍGUEZ, Blanca Yamily

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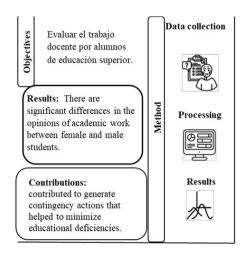
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Abstract

Two years after the end of the COVID-19 stage, studies have been found on various factors related to university education; however, each region experienced and developed strategies in a different way. This situation contributed to generate contingency actions that helped to minimize educational deficiencies when these could not be face-to-face; however, although there were certainly insufficiencies, most teachers had to manage to transmit their knowledge, often supported by technological tools or by any other means that suited their work or teaching skills. The objective of this research was to evaluate the teaching work during the confinement generated by the COVID-19 pandemic by the industrial engineering students of the Instituto Tecnológico de Mérida. The study had a quantitative approach, relational scope since groups of industrial engineering students were compared, and non-experimental cross-sectional design, since variables were measured at a single point in time and variables were compared with respect to gender. The results showed that there are significant differences in the opinions of academic work between female and male students. This result leads us to reflect on the need to address the teaching-learning process in female students, since the results obtained show that they do not perceive academic work in the same way as male students.



Insufficiencies, Contingencies, Students

Identification of psychological violence in dairy producers in Reyes Etla, Oaxaca, Mexico

Identificación de violencia en el proyecto social para productoras de lácteos en el Municipio de Reyes Etla Oaxaca, México

MARTÍNEZ-MARTÍNEZ, Celeste, CASTILLO-LEAL, Maricela, VENEGAS-NAVA, Soledad and RÍOS-CASTILLO, Maricela

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Abstract

The objective of this research is to identify the types of violence to which women cheese and quesillo producers were exposed in Reyes Etla, Oaxaca, Mexico, during the "World's Largest Quesillo 2024" project, based on the analysis of the experiences of the women who participated in the "World's Largest Quesillo" in Reyes Etla, Oaxaca, Mexico; as well as to identify the factors that promote violence against women quesillo producers in the municipality of Reyes Etla, Oaxaca. It is a qualitative research, the type of research is descriptive-explanatory-analytical, as well as participatory, which allowed to identify behaviors and collect their experiences. The main research instruments used were direct observation, interviews, and life stories. The main contributions are the identification of the cycle of violence and the breaking of social stereotypes in the community regarding the role of women.

Identification of psychological violence in dairy producers in Reyes Etla, Oaxaca, Mexico			
Objective	Methodology	Contributions	
To identify the types of	Qualitative research	Identification of	
violence to which women cheese and quesillo producers in Reyes Etla, Oaxaca, Mexico, were exposed during the "World's Largest Quesillo 2024" project.	Descriptive- explanatory- analytical type of research; and		

Psychological violence, Stereotypes

Design of a tool to integrate the costs of dental treatments. Case study: dental station clinic

Diseño de herramienta para integrar los costos de tratamientos dentales. Caso clínica dental station

AVILA-MORALES, Fernando Javier Maximiliano, GUILLERMO-CHUC, Giselle, QUIJANO-GARCÍA, Román and PATRON-CORTES, Roger Manuel

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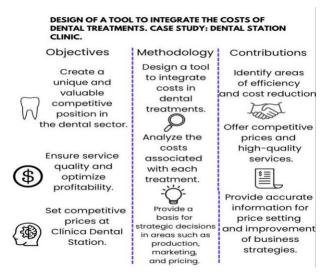
1st Coauthor: Giselle, Guillermo-Chuc / OORC ID: 0000-0002-7748-4731, Researcher ID Thomson: AAA: 5907-2022

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Abstract

Every company must adopt a plan focused on creating a unique and valuable strategic position in the business realm. This competitive position should generate dissonance with other companies in the same sector. Dental services require strategies to ensure their quality and profitability. Cost integration is a key method to achieve both objectives. This research explores the potential of cost integration to achieve the pricing objective at Dental Station Clinic. An efficient methodology allows for informed decisions about pricing, production, marketing, and other areas, contributing to improved profitability by identifying areas of efficiency and cost reduction. Furthermore, it strengthens competitiveness in the market by enabling the offering of competitive prices and high-quality products or services. The study uses a descriptive methodology to design the tool that will integrate costs for dental treatments, which will enhance profitability. The results obtained will help identify incurred costs and assign selling prices to dental treatments.



Cost integration, Competitiveness, Profitability

Applied innovation in textile embroidery crafts from the "Magical Route of Oaxaca Crafts"

Innovación aplicada en artesanías textiles de bordados de la "Ruta Mágica de las artesanías de Oaxaca"

CASTILLO-LEAL, Maricela, RIOS-Y VAZQUEZ, Othón Cesareo, ACEVEDO-MARTINEZ, Jorge Antonio Silvestre and CRUZ-GARCIA, Leobardo Daniel

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Abstract

Innovation is a tool to promote development through the improvement of products, processes, strategies or forms of organization for any type of entity, whether public, private or in the third sector. In artisan companies in rural communities, innovation manifests itself in different ways and in different magnitudes. Those companies that make use of this tool tend to increase their competitiveness in contrast to those that show resistance to what is new and what they consider non-traditional. This article aims to describe the different ways in which applied innovation is reflected both tangibly and intangible in artisan companies in one of the municipalities that make up the "Magical Route of Crafts" in Oaxaca through a qualitative study with techniques that allow the subjects of the research to obtain free and natural information.

Applied innovation in textile embroidery crafts from the "Magical Route of Oaxaca Crafts".						
Object	tive	Meth	odology	Contri	ibutions	
ই 🍑 ই	Describe the	-	Qualitativ	a01	The	study
, gArg.	different	E-3-22	e research		shares	
perma	ways of	~	approach	333.	different	:
M.b	innovation	333	of a non-	.A.	models	and
	applied in	00	experime		methods	of
	artisanal		ntal,		innovati	on
	embroidere		descriptiv		that	have
	d textile		e nature.		been	
	companies.				promote	d by
	-				artisan	
					compani	es.

Innovation, Development, Competitiveness

Analysis of urban tourism in Chetumal, Quintana Roo

Análisis del turismo urbano en Chetumal, Quintana Roo

NANDI-AGUILLÓN, Nallely, MENESES-DOMINGO, José Manuel and LARA-VERA, María Guadalupe

Tecnológico de Chetumal

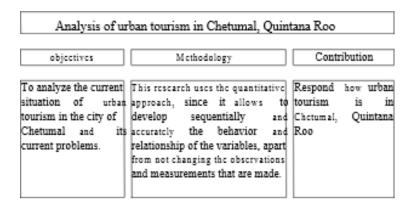
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Abstract

The objective of the study is to conduct an analysis of urban tourism in Chetumal, Quintana Roo in order to examine the current situation of tourism in this coastal city and to address the problems it faces. A comprehensive research is carried out that includes the analysis of various aspects of urban tourism in Chetumal. This ranges from the existing tourism infrastructure to the quality of services offered, as well as the perception of visitors and local residents about the tourism industry. Among the problems identified is the lack of adequate tourism infrastructure, which can range from a shortage of hotels and restaurants to deficiencies in transportation and tourist attractions available in the city. In addition, there is a deficient promotion and advertising strategy, which limits the visibility of Chetumal as a tourist destination both nationally and internationally.



Tourism shortage, Investment deficiency and Promotion of tourism development

Characterization of the acceptance of violence in university students of a public University in Western Mexico

Caracterización de la aceptación de la violencia en estudiantes universitarios de una Universidad Pública del Occidente de México

REYNOSO-LUNA, María Gabriela, MORALES-MARTÍNEZ, Mario Alberto, VALDEZ-ESTRADA, Sara and VERA-CAMACHO, Areli

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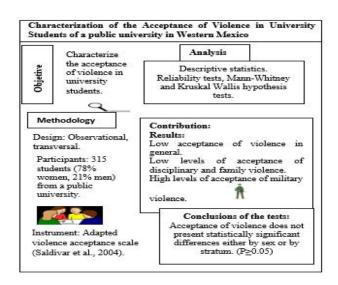
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Abstract

Objective: Characterize the acceptance of violence in university students. The study was carried out with a cross-sectional observational design and measurement through the version adapted to Mexico of the violence acceptance scale (Saldívar et al., 2004). 315 students from a public university participated, 78% women and 21% men, selected with a non-probabilistic technique. Descriptive analyses, reliability tests and two hypothesis tests were carried out: Mann-Whitney U to compare the scale scores by sex and Kruskal Wallis to contrast them by social stratum. A low acceptance of violence and low levels of acceptance of disciplinary violence and family violence were found, consistent with Saldívar et al. (2004). In contrast, high levels of acceptance of military violence were recorded. The hypothesis tests do not show statistically significant differences by sex or social stratum.



Characterization, Acceptance of violence, University students

Know-how as element of strategic management in an it solution company

Know how como elemento de administración estratégica en una empresa de soluciones informáticas

VARELA-COUOH, Andrea, QUIJANO-GARCÍA, Román, GUILLERMO-CHUC, Giselle and ALCOCER-MARTÍNEZ, Fidel

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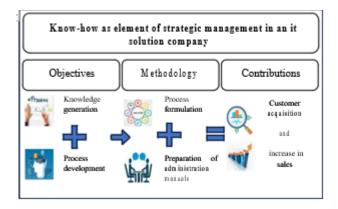
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Abstract

The health crisis known as COVID-19 had consequences in the personal and business environment where human beings interact and it proved, among other aspects, that organizations with established administrative documents and previous strategic planning were able to face the negative economic effects and even innovate to remain active in the economic sectors where they operate. To identify the processes developed with exclusive knowledge of the work team members aimed to increase productivity within their organization, it was developed a case method study about a MSME from the IT services field that has remained active due to the knowledge acquired and transmitted without formal management of it, the results of the intervention allow to establish the opportunity to implement the know-how of the entity to strengthen the commitment of the bond organization - collaborators and create a competitive advantage aimed to its growth based on strategic planning.



Public policies, Social program, Sustainable development

Consumer analysis of second-hand clothing: Case of financial engineering students of the Polytechnic University of Francisco I. Madero

Análisis del consumidor de ropa de segunda mano: Caso estudiantes de ingeniería financiera de la Universidad Politécnica de Francisco I. Madero

CRUZ-SÁNCHEZ, Eduardo, TREJO-ENCARNACIÓN, Patricia, HERNÁNDEZ-GÓMEZ, Diana and MOCTEZUMA-NAVIA, Dalia Alejandra

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Abstract

The objective of this research is to analyze second-hand clothing consumers and its economic and environmental impact. A quantitative methodology was employed, using a descriptive design, through a survey consisting of 17 items. The results indicated that the use of second-hand clothing among students is associated with both economic and environmental benefits. A positive correlation was observed between the choice of 'second-hand' garments and reduced spending on new clothing, as well as an increase in their savings level.



Savings, Clothing Consumption, Economy

Pathway at (re) discusse intergovernmental fiscal agreements in the argentine republic

Ruta para (re) discutar acuerdos fiscales intergubernamentales en la república argentina

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Abstract

This research, with an explanatory design and qualitative methodology, articulates an exhaustive analysis of federalism in Argentina, emphasizing the need for a balanced approach to fiscal federalism that recognizes historical inequalities, territorial asymmetries and promotes regional development. It advocates reforms aimed at improving local governance, institutionality and ensuring equitable distribution of resources, ultimately striving to improve socioeconomic conditions in all regions of the nation.

Objetives	Methodology	Contribution
The article focuses on the allocation of fiscal responsibilities and resources, the historical inequalities, and the concentration of wealth in certain provinces in Argentina.	The study employs an explanatory research design with a qualitative approach. It focuses on analyzing fiscal intergovernment al arrangements.	The article contributes to the understanding of vertical fiscal imbalances and their impact on local governance in Argentina.

Federalism, Government agreements, regional asymmetries

Games and playful experiences for managing emotions: experience in the university classroom

Juego y experiencias lúdicas para la gestión de las emociones: experiencia en el aula universitaria

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Abstract

The purpose of this article had the goal to play for the development of emotional intelligence for to manage from tenderness, the research methodology was qualitative, non-experimental and descriptive, the technique was external and internal participant observation, with records in a field diary. From a game and play workshop, the education of emotions was worked on, one of the findings was the condition of lack of love in which we live today, the fragility of human links leads to experiencing mistrust, insecurity and having little smooth reactions in the interactions, this is the result of the poor management of emotions. Emotional education is not valued within the classrooms because professional training is prioritized. There is a condition of individual fragmentation that cannot recognize the world of emotions and therefore not be empathetic with the emotions of the other. We need a human and integral formation that manages to eradicate the infantilization of the person. One of the contributions of the research work is not only to play for emotional management but the possibility of recognizing oneself as human with dignity.

Objective	Methodology	Contribution
Playing to	Qualitative, non-	Recognize that
develop	experimental	play and
emotional	and descriptive.	playfulness are
intelligence and	External	important for
to interact with	observation	the
others with tenderness.	technique and internal	development of emotional
	participation.	intelligence in
	Tool: field diary	young adults at
	'	the
		university level

Games, Playfull, Emotions

Compliance with transfer pricing regulations, importance of digital deliverables

Cumplimiento de normatividad de precios de transferencia, importancia de la estandarización de los entregables digitales

AGUILAR-PÉREZ, Esmeralda, IRIGOYEN-ARROYO, Luis Ernesto and SOTO-RIVAS, Soledad

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Abstract

The standardization of digital and physical deliverables for transfer pricing compliance is relevant. Descriptive and qualitative research was used. 54.5% of the population considers the transaction process efficient, 36.4% complies and only 9.1% is dissatisfied.

Compliance with transfer pricing regulations, importance of digital deliverables			
Objectives	Methodology	Contribution	
Standardize digital and physical deliverables of competent information for compliance with transfer pricing regulations.	research used was descriptive and	standardization of work papers	

Standardization, Tansfer Pricing

Importance of internal control to comply with the regulations of the Federal Law for the Prevention and Identification of Operations with Resources of Illicit Origin (LFPIORPI)

Importancia del Control interno para cumplir con la normativa de la Ley Federal para la Prevención e Identificación de Operaciones con Recursos de Procedencia Ilícita (LFPIORPI)

AGUILAR-PÉREZ, Bacilisa, ROMERO-CRUZ, Rodolfo, AGUILAR-PÉREZ, Silvia Madai and AGUILAR-PÉREZ, Nohemi

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Abstract

The project to establish internal control in customer files is important to comply with the regulations. The type of research used was descriptive and qualitative, the sample included the company's personnel. (LFPIORPI) in the area of Money Laundering Prevention.

Objectives	Mathadalage	Contribution	
Objectives	Methodology		
Establish internal	The type of	The project to	
control to comply	research used was	establish internal	
with the	descriptive and	control in	
regulations of the	qualitative, the	customer files to	
Federal Law for	sample included	comply with	
the Prevention	the company's	regulations has	
and Identification	staff.	been a	
of Operations		fundamental	
with Resources of		initiative to	
Illicit Origin		guarantee	
(LFPIORPI) in the		regulatory	
area of Money		compliance and	
Laundering		strengthen	
Prevention.		transparency and	
		integrity in the	
		company's	
		operations.	

Money Laundering, Automotive Company, Internal Control

Analysis of the determining factors and repercussions associated with the use of social networks in SMEs: a literature review

Análisis de los factores determinantes y repercusiones asociados al uso de las redes sociales en las PYMEs: una revisión de literatura

LEAL-DURAN, Jhesica Faxuri, CADENA-LOPEZ, Aydé and RIVERA-GONZALEZ, Gibrán

Instituto Politécnico Nacional

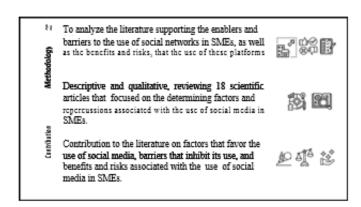
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Abstract

Digital evolution has driven the use of social networks by small and medium-sized enterprises (SMEs). Therefore, the objective of this research is to analyze the literature supporting the enablers and barriers to the use of social networks in SMEs, as well as the benefits and risks that the use of these platforms brings to these organizations. The study uses a descriptive and qualitative methodology, reviewing 18 scientific articles that focused on the determining factors and repercussions associated with the use of these tools. The main findings reveal that low cost and ease of use were important enablers. instead, lack of resources and insufficient knowledge represented significant barriers. Benefits included financial growth and customer loyalty, while risks highlighted reputational damage and lack of profitability due to poor management.



SMEs, Social media, Literature review

Negotiation as an alternative conflict resolution in mexican cooperatives

La negociación como alternativa de resolución de conflictos en las cooperativas mexicanas

DOMÍNGUEZ-SÁNCHEZ, Lorena and RAMÍREZ-HERRERA, Dania

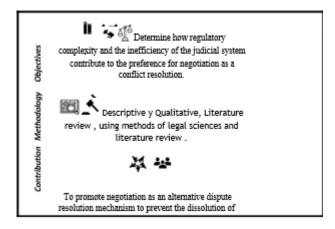
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Abstract

This article analyzes the need for alternative solutions to resolve conflicts in Mexican cooperatives, in a context of distrust towards the judicial system and the complexity of commercial and cooperative law. These circumstances generate uncertainty and can lead to "societal deadlock," affecting the operation of cooperatives. The research aims to determine how regulatory complexity and the inefficiency of the judicial system contribute to the preference for negotiation as a conflict resolution. The methodology used is qualitative and descriptive, using methods of legal sciences and literature review to examine theoretical and normative frameworks on conflict resolution. The results indicate that distrust in judicial institutions has led to their disuse, suggesting that promoting negotiation could revitalize both the use of the judicial system and the sustainable development of cooperatives in Mexico



Negotiation, Aims, Cooperatives

The digital age, without using computers

La era digital, sin usar las computadoras

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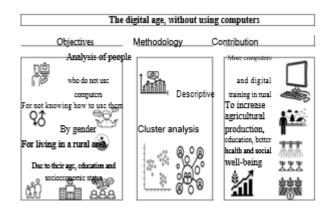
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Abstract

Some economic theories support the use of technology as a source of economic growth. The objective was to perform an analysis of people who do not use computers in Mexico, associating their gender, area of residence, age, education and socioeconomic status. The research was descriptive, and a cluster analysis was performed using an unsupervised analysis method with a sample size of 27,923 people. It was found that the Rural Group of People do not use the computer because they do not know how to use it and because of a lack of economic resources, in addition to having a lower educational level and younger age. It is concluded that the government should focus public policies on favoring these groups in rural communities and consider urban groups of men who do not use the computer because they are not interested in using it and do not have access to it. Likewise, at the country level there is a digital gender gap.



Socioeconomic, Associating. Rural

Proposal of a sustainability model for comprehensive medical centers in the south of the state of Tamaulipas

Propuesta de un modelo de sustentabilidad para los centros médicos integrales del sur del estado de Tamaulipas

PÉREZ-PÉREZ, Iris Cristel, AGUIRRE-ARIAS, Miriam and GONZÁLEZ-GAMEZ, Liliana

Tecnológico Nacional de México campus Ciudad Madero

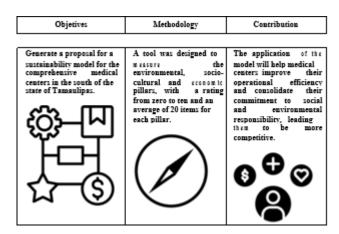
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Abstract

The Spanish language dictionary defines sustainability as "what can be sustained or defended with reasons." Sustainable development is making correct use of current resources without compromising those of future generations. A tool was designed to measure comprehensive medical centers which addresses the three key pillars, environmental, social (sociocultural) and economic, the data obtained was analyzed to generate a sustainability model that allows the aforementioned to move towards sustainable development giving solution to the current problems that affect them, considering all the actions, it is important to mention that the commitment of the parties is required to achieve the objectives.



Sustainability, Model, Tools

Influence of training on productivity. A study in micro service companies

Influencia de la capacitación en la productividad. Un estudio en microempresas de servicios

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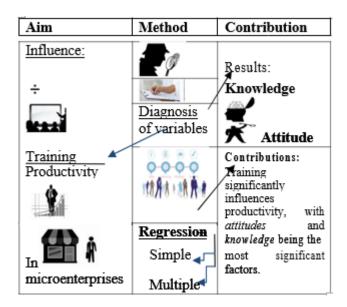
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Abstract

Nowadays, micro-enterprises face constant challenges to maintain their efficiency and competitiveness, where a large part of this responsibility falls mainly on the performance and efficiency of the workers. Given this situation, it is important that the productivity of the employees is continuously stimulated, with training being one of the options. Therefore, the aim of this research was to determine the influence of training on the productivity of workers in service micro-enterprises. To this end, a diagnosis was made on the perception of the variables training and productivity, analyzing the results obtained through inferential statistics. The results showed that the attitude to receive training and the knowledge acquired significantly influence the productivity of workers. It is concluded that micro-enterprises must provide continuous training to their workers in order to provide them with more tools to stimulate their productivity and work performance, as well as their personal and professional development.



Training, worker productivity, SMEs

Perception of dating violence in adolescents through the identification of "Red flags" and "Green flags" in a community intervention

Percepción de la violencia en el noviazgo en adolescentes a través de la identificación de "Red flags" y "Green flags" en una intervención comunitaria

ESPINOSA-PARRA, Irene Margarita, MEZA-DÁVALOS, Martha Berenice, ROJAS-MONTOYA, Cecilia del Carmen and PARRA-JIMÉNEZ, Elvia Lizette

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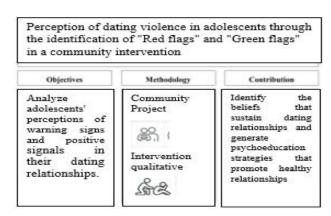
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Abstract

This study raises the problem of violence in adolescent dating, through the identification of the so-called "Red flags (negative signals) and "Green flags" (positive signals), with the objective of analyzing the perceptions of what s adolescents about the warning signs and positive signs in their dating relationships. The results were obtained with the participation of 250 students from different educational schools in Nayarit with prior informed consent, through the content analysis technique, identifying that the Red flags play an important role in the normalization or questioning of violent behavior, while the "Green flags" emerge as a valuable resource to foster relationships based on respect and equity. This research contributes to enriching the field of dating violence prevention from the perspective and own experience of adolescents, which allows for the design of more effective and culturally relevant interventions.



Violence, Dating, Teenagers

Digital marketing in service organizations in the San Martín Texmelucan Puebla region

Mercadotecnia digital en organizaciones de servicios de la región de San Martín Texmelucan Puebla

IRIGOYEN-ARROYO, Luis Ernesto, SOTO-RIVAS, Soledad and HERNÁNDEZ-HERNÁNDEZ, María Elena

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Abstract

MSMEs represent more than 90% of all companies in Mexico, which is why it is important to contribute to their maintenance, as they generate sources of employment and contribute to the development of society. The region under study is highly commercial and there is high mortality of MSMEs, through this work we seek to help them maintain themselves by being known by the target market.

Digital marketing in service organizations in the San				
Martín Texmelucan Puebla region				
Objectives	Methodology	Contribution		
Design a digital marketing	The type of research used	The most important results indicate that		
product for the	was	there is great		
promotion of	1	ignorance on the		
companies and	and	part of		
organizations in	qualitative,	businesspeople in		
the San Martín	the sample	the region about		
Texmelucan	was	the advantages of		
region.	considered	social networks		
	for	and digital		
	convenience.	marketing.		

Entrepreneurship, Marketing, SMes

Didactic and simulation media to evaluate financial scenarios of SMEs

Medios didácticos y de simulación para evaluar escenarios financieros de las PyMEs

HERNÁNDEZ-HERNÁNDEZ, María Elena, AGUILAR-PÉREZ, Esmeralda and IRIGOYEN-ARROYO, Luis Ernesto

Tecnológico Nacional de México

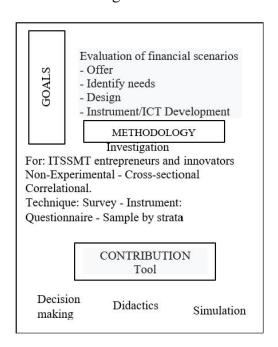
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Abstract

The purpose of this work was to identify the knowledge needs to carry out the evaluation of investment projects in Entrepreneurs and Innovators of the ITSSMT, the design of the research study was non-Experimental, Transversal - Correlational, with sampling by strata. and as a research technique, the documentary was applied and the field was based on the Survey, the results found provide the basis for developing a tool based on ICT, which serves as a didactic and simulation instrument to strengthen decision making in the field. Financial of entrepreneurs and innovators with characteristics of an SME,



Evaluation, Project, Entrepreneur

The difficult reconciliation of motherhood and academic training for student mothers of the ITSSMT Public Accounting Career

La difícil conciliación de la maternidad y la formación académica de las madres estudiantes de la Carrera de Contador Público del ITSSMT

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Abstract

Motherhood is presented as a crossroads experienced by student mothers at the Tecnológico Nacional de México San Martín Texmelucan campus. Patriarchal culture pigeonholes women in the work of social reproduction such as care and domestic work. "They" face strategies of physical and emotional exhaustion at the conclusion of their academic training.

Objectives	Methodology	Contribution	
Make visible the importance of	The type of research used was	The findings show the experiences of	
the reproduction	descriptive and	women students	
work carried out	qualitative with a gender	of the Public Accounting	
by women students of the	perspective using		
1	ш-асраі	reconciling the	
public	interviews to	roles of mother,	
accounting	understand the	wife and student.	
	difficulties of		
the completion	female students of		
of the public	the ITSSMT		
accounting	Public		
career.	Accounting		
	Career.		

Difficult Conciliation, Maternity, Academic Training

Ecotourism proposal for the Las Ventanas property of the Mineral del Chico National Park in Hidalgo, Mexico

Propuesta ecoturística para el predio Las Ventanas del Parque Nacional de Mineral del Chico en Hidalgo, México

OMAÑA-SILVESTRE, José Miguel and QUINTERO-RAMÍREZ, Juan Manuel

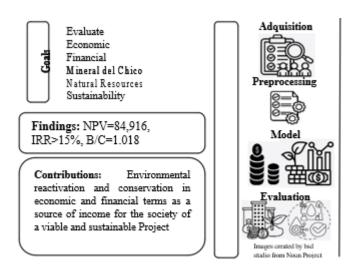
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Abstract

Alternative ecotourism contributes to the care and preservation of a nation's natural and cultural heritage and constitutes a response to the growing and constant environmental degradation of many sites and their attractions. The objective of this proposal is to elaborate an ecotourism project as a means to take advantage of the available unused resources, according to the geographical and productive characteristics of the site, based on the principles of sustainability, as an economic alternative to the owners of the site for the generation of income and improvement of their quality of life. The proposal presents a methodology that can be reproduced for the design and implementation of an ecotourism plan and is an alternative for the diversification of activities in the rural sector. The economic-financial evaluation of projects determines the main indicators of Net Present Value, Internal Rate of Return, Benefit-Cost Ratio and Payback Period of the investment. The results indicate that the ecotourism model is economically and financially acceptable for the main indicators calculated at a discount rate of 15% over a 5-year investment recovery period.



Ecotourism, Project Evaluation, Financial Indicators

Marketing strategies of MIPyMES in the Cd. Mexico and metropolitan area during and after the pandemic

Estrategias mercadológicas de las MIPyMES en la Cd. México y área metropolitana durante y después de la pandemia

ÁLVAREZ-GARCÍA, Mónica, GUTIÉRREZ-ZEPEDA, Martha del Pilar, GUERRERO-IBARRA, Carlos and WALDO CAAMAÑO, José David

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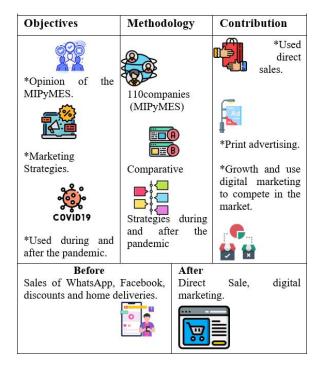
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Abstract

In MIPyMES, it was a problem to withstand market irregularities and maintain themselves during the pandemic (SARCOV-2). Companies began using digital marketing to market, and after four years, they must carry out strategies for online and direct sales. This research aims to know the opinion of 110 companies that previously underwent a study on the marketing strategies used during the pandemic and then through a comparison. The research results show that during the pandemic, social networks were used for sales and promoted products with discounts and home deliveries, yet direct sales, deals, demonstrations, and printed advertising continued to be the most used and have greater results. Digital marketing has grown enormously, and MIPyMES must venture into it to continue competing in the market.



Marketing Strategies, MIPyMES, Pandemic

Perception of the key competencies of lifelong learning and employability of university students and graduates from Colombia and México

Percepción de las competencias clave de aprendizaje permanente y empleabilidad de los universitarios y egresados de Colombia y México

PRADO, Isela, DÍAZ, Esperanza and PEÑA, Lourdes

Universidad Tecnológica de Querétaro

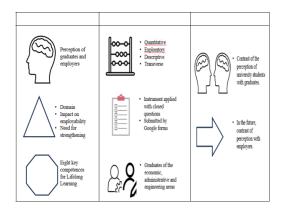
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Abstract

The implementation of strategies to strengthen key competencies for lifelong learning requires considering the environment and perspectives of different actors. This research aims to describe the perception of university students and graduates regarding the eight key competencies for lifelong learning, from their impact on employability, mastery achieved and need for strengthening. The research is quantitative, exploratory, cross-sectional and non-experimental with a descriptive approach. The results showed that university students and graduates coincide in the competencies perceived as having the greatest need for strengthening: multilingual, the one with the greatest mastery: citizenship and with the greatest impact on employability: digital, which fulfills the hypotheses raised. In the results by country, Mexicans and Colombians coincide in the competencies of need for strengthening: multilingual and impact on employability: digital. They differ in domain: Colombians perceive citizenship and Mexicans additionally perceive social personnel and learning to learn and cultural awareness and expression.



Lifelong learning, Skills, Employment

Linking individual emotional abilities and precepts of educational innovation

Vinculación de las habilidades emocionales individuales y preceptos de innovación educativa

HERNÁNDEZ-CUETO, Jaquelina Lizet, FLORES-GONZÁLEZ, Velia María, LÓPEZ-COVARRUBIAS, Jacqueline and ORTIZ-MUZA, Rosa Elizabeth

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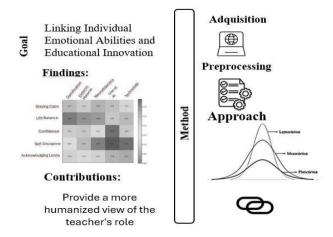
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Abstract

The present study shows the underlying relationships between the individual emotional abilities of teachers at different educational levels and the precepts of educational innovation measured through neurodidactics and technology. The methodology used was quantitative, for which an instrument was developed with 48 variables, of which 45 were numerical ratios with a decimal scale and 3 were nominal to describe the sample. The contribution of this proposal is to offer a more human vision of the teacher and his pedagogical tendency with innovative elements.



Emotional skills and educational innovation

Modelo de transporte de fresa (Fragaria L.) en México para Mercado Cerrado

QUINTERO-RAMÍREZ, Juan Manuel, OMAÑA-SILVESTRE, José Miguel and GARCÍA-RICO, Perla Araceli

Consejo Nacional de Humanidades, Ciencia y Tecnología

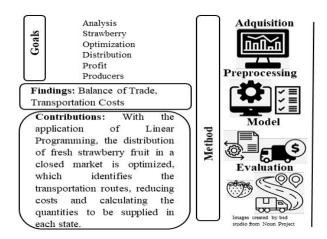
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Abstract

The objective of this research is to develop a transportation model for the optimization of strawberry distribution in Mexico in a closed market through the use of linear programming. The formulation of this model includes the objective function and supply and demand constraints derived from various calculations and research. The information gathered comes from official sources such as SIACON, INEGI and the Foreign Trade Information Cube of the Bank of Mexico. On the other hand, transportation costs are calculated using GlobalMap© and the resolution of the model through LINDO 6.1® software. This model allows for the identification of optimal routes and quantities for distribution between strawberry supplying and demanding states, and not only optimizes internal logistics, but also reduces transportation costs.



Transport model, Strawberry, Closed market

Modelación de la distribución en mercado cerrado de plátano (Musa × paradisiaca) en México

OMAÑA-SILVESTRE, José Miguel, QUINTERO-RAMÍREZ, Juan Manuel and VELASCO-GONZÁLEZ, María Audiz

Colegio de Postgraduados

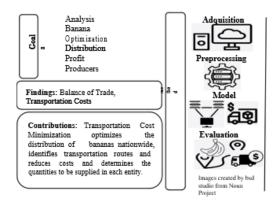
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Abstract

One of the fruits that is consumed and produced in Mexico is the banana, but that in seasons it is not possible to find in the markets for its purchase. The objective of this research is to identify the optimal routes for the national banana trade, through the application of linear programming, with the purpose of maximizing the economic benefit. The methodology applied is the analysis of apparent national consumption based on production, as well as export and import volumes and the population of each state of the Mexican Republic. With this information, points of origin and destination were established, which were optimized through linear programming, considering a closed market economy. Thus, when solving the total supply of plantain, there are six suppliers (Chiapas, Colima, Jalisco, Veracruz, Tabasco and Michoacán), and 26 demand states of this fruit. A commercial and consumption balance was obtained for the year 2022, which allows the route and quantity to be supplied to each deficit state.



Linear programming, Optimal routes, Banana

State of the art on the importance of research and knowledge dissemination in scientific journals

Estado de arte sobre la importancia de la investigación y la divulgación de conocimiento en revistas científicas

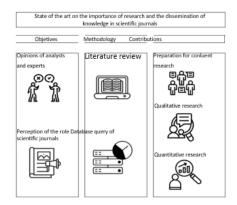
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Abstract

Scientific research and its dissemination in specialized journals are fundamental pillars for the advancement of knowledge and social development. This exploratory study examines the state of the art on the relevance of research and the dissemination of knowledge in scientific publications, focusing on the context of Mexican universities, particularly Technological Universities. The analysis ranges from the generation of knowledge to the challenges that researchers face in the publication process, highlighting the importance of scientific dissemination in today's society and its impact on the quality of life of the population.



Dissemination, Importance, Scientific journal

Impact of the reforms to the federal labour law on academic workers in Mexico's public universities

Impacto de las reformas a la ley federal del trabajo en los trabajadores académicos de las universidades públicas en México

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Universidad de Guanajuato

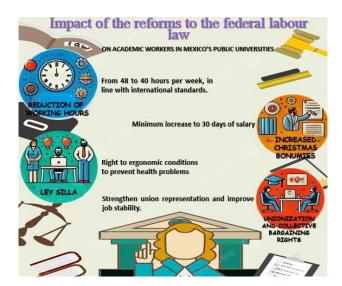
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Abstract

Several of the laws that have been reformed recently seem to be aimed at the commercial or business sector, but do they have implications for academics? This paper presents a brief analysis of the implications for academic workers in Mexico's public universities of the laws that have been reformed, specifically: the reduction of the working day, the increase in the Christmas bonus, the Ley Silla, and the rights of unionisation and collective bargaining. As can be seen, these reforms, although designed to improve working conditions in general, have specific implications in the academic context of public universities.



Public Universities of Mexico, Labour Reform, Aguinaldo, Reduced working hours, Ley Silla, Law Chair

Agricultural Sciences and Biotechnology

Protected Natural Areas: A literary analysis of the Decrees of the Cerro de San Juan Biosphere State Reserve in Nayarit

Áreas Naturales Protegidas: Un análisis literario de los Decretos de la Reserva Estatal de la Biosfera Cerro de San Juan en Nayarit

GÓMEZ-PINTADO, Rocío, ZEPEDA-MARTÍNEZ, Gabriel, ENCISO-ARÁMBULA, Rosalva and SOTO-CEJA, Edel

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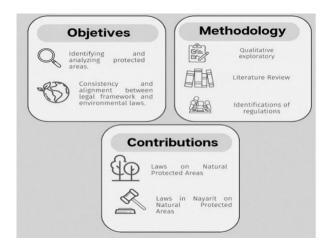
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Abstract

Protected Natural Areas (ANP) in Mexico are key to conserving biodiversity but face challenges due to poor management and violations of environmental laws, resulting in degraded habitats. The LGEEPA and state laws are essential for their conservation, requiring alignment of local governments. Collaboration among governmental entities, research centers, and society is crucial to establish ANP that comply with environmental policies. A study in 2023 analyzed environmental legislation and its impact, aiming to identify effective regulations for local communities. For effective conservation, ANP need appropriate management categories, zoning, and plans supervised multidisciplinarily. This approach will ensure efficient management aligned with national goals for conserving and restoring ecosystems in Mexico.



Protected natural areas, Environmental legislation, Biodiversity

Viability of the open-pit cultivation of bell peppers in Meoqui, Chihuahua

Viabilidad del cultivo de chile morrón (Capsicum annuum L) a campo abierto en Meoqui, Chihuahua

PACHECO-MELÉNDEZ, Brenda Marina, MACÍAS-LÓPEZ, María Guadalupe, ORTEGA-MONTES, Fabiola Iveth and PÉREZ, Jerónima, Antonieta

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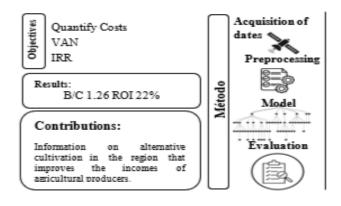
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Abstract

Chili bell pepper (Capsicum annuum L.) has its origin in South and Central America, domesticated in Mexico (Mendoza, 2010), and is part of the small genus of tropical herbs. In Mexico, there is a lack of sufficient economic information about the production costs of the chile bell pepper crop; however, it is considered an economic alternative due to the low input costs it requires. The objective of this study was to determine the economic viability of this crop in a plot established in the municipality of Meoqui Chihuahua, Mexico, where the costs of cultural activities and necessary inputs were collected from land preparation, establishment of the plantation until harvest, and the financial indicators net present value (NPV), internal rate of return (IRR) and the benefit-cost ratio (B/C) were considered. A B/C ratio of 1.26 was obtained, an IRR of 22%, higher than the discount rate (12%), which indicates viability.



Costs, Economic indicators, Harvest

Genetic diversity of native maize for the intermediate region in Veracruz state, México

Diversidad genética del maíz nativo en la región intermedia del estado de Veracruz, México

SIERRA-MACIAS, Mauro, SIERRA-MACIAS, Mauro, MARÍN-ANDRADE, Ana Isabel and FIERRO-LÓPEZ, Reyna Michelle

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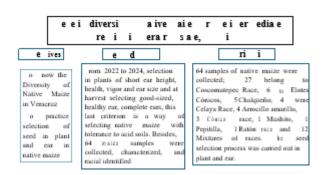
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Abstract

With the objective of Knowing the Diversity of Native Maize in the Intermediate Region in Veracruz state, during 2022 to 2024, there was realized seed selection in plant and ear using as criteria: Low ear height, healthy, vigor and at harvest selecting good-sized, healthy ears, but, above all, complete ears; this last criterion is an indirect way of selecting native maize with tolerance to acidic soils and drought; Besides, there were collected and characterized, 64 samples of native maize, which of them, 27 belongs to Coscomatepec Race, 6 Elotes cónicos, 5 to Chalqueño; 4 to Celaya race, 4 Arrocillo amarillo, 3 Conical, 1 Mushito, 1 Pepitilla and 1 of Raton race and 12 samples were mixture of races.



Diversity, Zea mays L., Racial identification

Effect of hydraulic retention time and dissolved oxygen concentration on the biodegradation efficiency of phenol in an activated sludge reactor at different organic loading rates

Efecto del tiempo de retención hidráulica y concentración de oxígeno disuelto sobre la eficiencia de biodegradación de fenol en un reactor de lodos activados a diferentes tasas de carga orgánica

TERREROS, Jesús and GUTIÉRREZ, Guadalupe

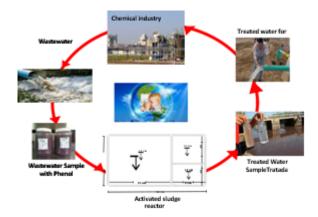
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Abstract

Phenol is an important contaminant in wastewater from processing and refining plants, its presence in ecosystems is related to the production and degradation of numerous pesticides. Their toxic action is related to their hydrophobicity, generation of organic radicals and reactive oxygen species, causing mutagenesis and carcinogenesis in humans and other living organisms. In this research, an activated sludge system was studied for the treatment of wastewater with high concentration of phenol for reuse, varying the hydraulic retention time and dissolved oxygen concentration. The results showed the best COD removal rate (55%) and phenol biodegradation (49%) during experiment IV, at a wastewater dilution rate of 25% (v/v), dissolved oxygen (DO) feed of 1.5 ppm, hydraulic retention time (HRT) of 2.81 days and organic load (Bv=7.5kgCOD/m³·d).



Bioaccumulation, Phenolic Environmental Contamination

Prototype for thermal conductivity measurement of materials made in forest agroresidue

Prototipo para medición de conductividad térmica de materiales a base de agroresiduos forestales

ORTIZ-RODRÍGUEZ, Lilia, SÁNCHEZ -PACHUCA, Alejandro and CUEVAS-SUÁREZ, Carlos

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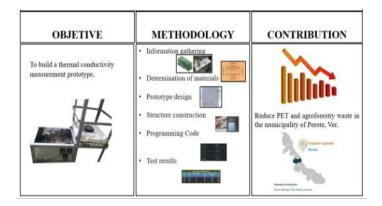
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Abstract

This research focuses on the development of a prototype machine to determine the thermal conductivity of insulating materials made from agroforestry residues and PET, following the ASTM C177 standard for the protected hot plate method. The study raises awareness of the importance of sustainable insulating materials as alternatives to conventional petroleum-based options. The prototype design incorporates a hot plate with heating elements, cold plates with peltier cells for cooling, and temperature sensors for data collection. The research provides a detailed description of the design process, material selection criteria based on their thermal properties, and construction phases. The results show the potential of the prototype in measuring the thermal conductivity of agroforestry residues and PET as sustainable insulating materials.



Characterization, Morphology, Endemic

Engineering

Prototype of a structure with variations in the angle of inclination for photovoltaic panels

Prototipo de una estructura con variaciones en el ángulo de inclinación para paneles fotovoltaicos

HERRERA-ROMERO, José Vidal, ESCOBEDO-TRUJILLO, Beatris Adriana, ALAFFITA-HERNÁNDEZ, Francisco Alejandro and MORALES-SALAS, Lizbeth

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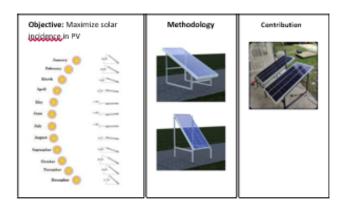
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Abstract

One of the most critical parameters for the capture of solar radiation is the angle of inclination of the surface and its contribution to optimization to maximize the amount of solar irradiation received. Numerous methods have been used worldwide to determine the angle of inclination. Unfortunately, many of these models are for fixed angles, which do not adapt to the sun's position during the year, resulting in the loss of essential amounts of irradiation that could be used. This work presents the methodology for developing a structure for photovoltaic (PV) panels fixed to the floor, which includes variations in the angle of inclination. The goal is to maximize the solar energy gain (energy per square meter) the panel receives over a year by making monthly tilt angle adjustments. The inclination angles are calculated for a structure, which will be placed in Coatzacoalcos, Veracruz, Mexico. The monthly angle of the prototype can have positive and negative values (tropical region); the maximum is 41.19° for December, and the minimum is - 4.95°, corresponding to June. The study can be applied to build a similar structure, with related variations in the angle of inclination, to work in any city, as long as information from the city in question is



Structure, Variations, Adjustments, Region, Prototype

Pressure drop prediction by a polynomial model for two-phase flow in vertical oil wells

Predicción de la caída de presión por un modelo polinomial para flujo bifásico en pozos petroleros verticales

HERNÁNDEZ-SANTOS, Abisai, ESCOBEDO-TRUJILLO, Beatris Adriana, ALAFFITA-HERNÁNDEZ, Francisco Alejandro and COLORADO-GARRIDO, Darío

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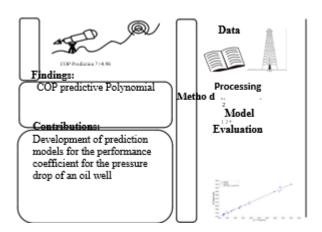
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Abstract

In this paper, a polynomial model is developed to predict the pressure drop in oil wells with two-phase flow. The variables used in the model are gas-oil ratio production, oil production, tubing diameter, solution gas-oil ratio, oil formation volume factor, and oil viscosity. A polynomial model is presented to predict the pressure drop with a coefficient of determination of 0.9901. The residual analysis and level surfaces of the pressure drop against the polynomial model's input variables are presented to validate the model. A regression of the experimental and predicted pressure drops values using the polynomial model is presented. This model contributes to a simpler methodology for the calculation of pressure drops and the consequent application in the modeling of production curves in oil wells for NODAL analysis.



Two-Phase Flow, Residual Analysis, Validate, Regression, Experimental, And Polynomial Model

Logic control design for calcium chloride dosing hopper for TCO Group

Diseño de control lógico para tolva dosificadora de cloruro de calcio para TCO Group

TUN-ORDOÑEZ, Jorge Sprewell, MANRIQUE-EK, Josué Abraham, CARDOZO-AGUILAR, Guadalupe and GÓMEZ-KU, Ricardo

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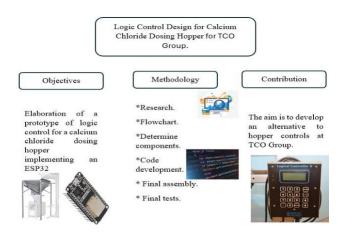
1st Coauthor: *Josué Abraham, Manrique-Ek /* **© ORC ID:** 0000-0002-1369-3526, **© Researcher ID Thomson**: 1-5873-2018, **©CVU CONAHCYT ID**: 94919

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Abstract

This paper highlights the implementation of the project "Logic Control for Calcium Chloride Dosing Hopper" in order to demonstrate the process to be followed for the development of this project that has been very useful for the company TCO Group, looking for a more economical alternative to the existing logic controls. The diagrams used, connections, programming, among other elements, are explained



ESP32, Prototype, Dosing Hopper

Individual public passenger transportation service for continuous improvement

Servicio de transporte público individual de pasajeros para una mejora continua

RODRÍGUEZ-VALENCIA, Blanca Susana, CASTRO-DE LA CRUZ, Jucelly, LÓPEZ-VALDIVIEZO, Leticia and MENESES-HERNÁNDEZ, José Luis

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Abstract

The world is changing rapidly due to factors such as globalization, the pandemic and high inflation, which affects both large companies and microentrepreneurs. In Tabasco, the taxi sector faces low productivity and greater demands due to the new mobility law and unfair competition. The objective of this research is to improve productivity in this sector. According to V.E.G.A. (2017), transportation is crucial for economic development, generating jobs and improving quality of life. The transportation union in Tabasco has 8 decades of experience and has competent human talent. Even so, it is necessary to measure and improve strategic management. Productivity is defined as the sum of efficiency (optimization of resources) and effectiveness (achievement of objectives and adaptation to the environment). The aim is to promote good labor practices and develop proposals that maximize economic benefits and improve the reputation of the sector.



Productivity, Mobility, Taxis

Analysis of the productivity of services in the mental health area of a high specialty Hospital in the State of Tabasco, for a proposal for improvement

Análisis de la productividad de los servicios en el área de salud mental de un Hospital de alta especialidad del Estado de Tabasco, para una propuesta de mejora

GARCÍA-JERÓNIMO, Irma, MENESES-HERNÁNDEZ, José Luis, GARCÍA-JERÓNIMO, Beatriz and NOTARIO-PRIEGO, Roger

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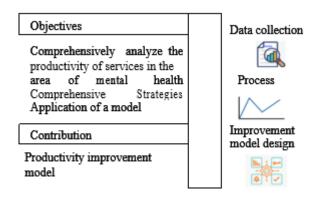
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Abstract

This research aims to address the issue of productivity in the mental health service area of a health department in Tabasco, with a specific focus on evaluating the efficiency and effectiveness of the services. Through a rigorous analysis, it seeks to identify the factors that influence productivity. The instrument used, named by the acronym TIEP (Integral Productivity Measurement Technique), was specifically designed to study organizations with a systemic and integral approach, that is, the tangible and intangible elements that make up the organization. This instrument consists of 10 elements considered important for the evaluator to know the external and internal context that exists in the organization. The comprehensive improvement model proposed for the mental health area in the Health Department in Tabasco is based on a combination of continuous staff training, increased managerial participation, innovation in processes and technologies, and community communication and participation strategies.



Productivity, Integral. Health

Development of a database for managing social service students using MATLAB

Desarrollo de una base de datos para gestión de alumnos de servicio social utilizando MATLAB

GONZÁLEZ-GALINDO, Edgar Alfredo, LUNA-ALANÍS, Héctor Nathán, GONZÁLEZ-LEDESMA, Alberto and CASTRO-PÉREZ, Joseph Kevin

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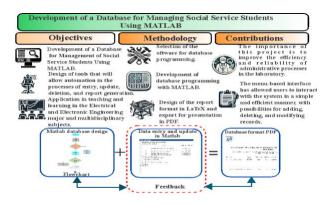
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Abstract

This work presents the development and implementation of a database for managing social service students using MATLAB. The system is designed to optimize and automate the processes of data entry, updating, deletion, and generation of student reports. The database includes essential fields such as student ID, name, account number, initial and final service periods, start and end dates, project title, and completion status. Users interact with the system through a menu-based interface in MATLAB, allowing easy addition, deletion, and modification of records. The system exports the database to a PDF report using MATLAB as a LaTeX editor, executing automatically. This solution reduces administrative workload in the laboratory, improving the efficiency and reliability of managing social service students.



Database, MATLAB, Latex

Study of the relationship between uniaxial compressive strength and the indirect tensile test (BTS) in rocks from the bank in Seybaplaya Campeche Mexico

Estudio de la relación entre la resistencia a la compresión uniaxial y el ensayo de tracción indirecta (BTS) en rocas del banco de Seybaplaya Campeche México

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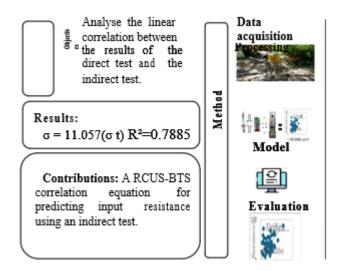
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Abstract

The present research focuses on analyzing the uniaxial compressive strength of rocks and its relationship with the indirect tensile test (the Brazilian method). It is important to note that Seybaplaya, located in Campeche, Mexico, is known for its fishing, industrial and commercial activities, and is home to a rock bank from which samples were obtained for this study. As a result, an equation was developed that allows predicting the simple uniaxial compressive strength from the values obtained in the indirect tensile test. It should be noted that this relationship is valid only for rocks with similar lithological characteristics of the samples analyzed. The results of the analysis and conclusions show the linearity of the relationship between the simple uniaxial compression resistance and the indirect tensile test.



Simple uniaxial compressive strength and indirect tensile strength in rock

Design and implementation of a mobile application to disseminate tourist places: case study Santa Rita Tlahuapan

Diseño e implementación de aplicación móvil para difundir lugares turísticos: caso de estudio Santa Rita Tlahuapan

PAREDES-XOCHIHUA, Maria Petra, SÁNCHEZ-JUÁREZ, Ivan Rafael and MARTÍNEZ-PÉREZ, José Randall

Tecnológico Nacional de México - ITS de San Martín Texmelucan

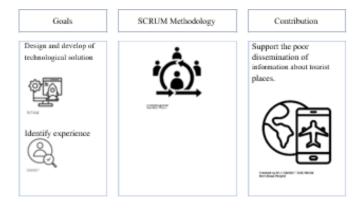
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Abstract

This article shows the design and implementation of a mobile application for the dissemination of tourist places. Because tourism in Mexico plays a fundamental role as an economic engine, being a valuable source of income for both international and national visitors. These tourists contribute significantly to the local economy by investing in services such as accommodation, food, transportation and tourist activities. This Android mobile application manages information about various tourist sites, such as recording the services, schedules, address and events available at each place. Users will be able to explore and comment on information about these classified places in different ways. In addition, the application will provide details about the geographical location of each site, making travel planning easier for tourists.



Mobile application, implementation, tourism

Comparison between the degradation effect induced by low pressure air plasma and at atmospheric pressure of diethyl (3h-1-ethoxy-3-phenoxazinylidene) ammonium chloride solution

Comparación entre el efecto de degradación inducido por plasma de aire a baja presión y a presión atmosférica de una solución de cloruro de dietil (3h-1-etoxi-3-fenoxazinilideno) amonio

ALARCÓN-HERNÁNDEZ, Fidel Benjamín, YÁÑEZ-CARRILLO, Bartolo, FUENTES-ALBARRÁN, María del Carmen and GADEA-PACHECO, José Luis

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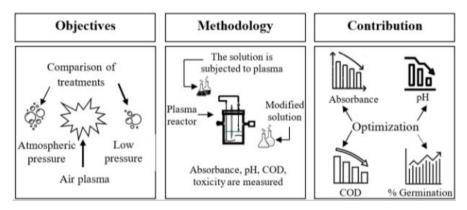
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Abstract

The influence of the number of air molecules on the degradation process of a dye (diethyl (3H-1-ethoxy-3-phenoxazinylidene) ammonium chloride) in aqueous solution by plasma was determined. The concentration of the solution was 17.00 mg/L, and it was exposed to plasma treatments performed at two different pressure values (~24 Torr / ~760 Torr), with an exposure duration of 50 minutes per treatment. Four plasma generation conditions (10, 15, 20 and 30 mA) were used at a voltage of 1500 V. The degradation of the dye was determined by UV/VIS spectrophotometry (absorbance and percentage of degradation) and chemical oxygen demand (COD), pH and bioassays with lettuce (Lactuca sativa) seeds. The temperature change was analyzed for both pressures. The degradation of the dye is more significant at atmospheric pressure than at low pressure for all treatments. The higher the plasma power, the greater the degradation.



Degradation, Plasma, Water treatment

Innovation in student care: development of a comprehensive system for project management

Innovación en la atención estudiantil: desarrollo de un sistema integral para la gestión de proyectos

NAVARRETE-PRIETO, José Antonio, DÍAZ-RINCÓN, Hilda, HERNÁNDEZ-CASTILLO, Eric and CARRIZALES-LONGORIA, José David

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Abstract

In today's learning environment, implementation and innovation in information systems is essential for the efficient functioning of educational organisations. This applied research focuses on the automation of degree project management, with a focus on improving communication between students and teachers. SAGEP seeks to provide an automated solution that facilitates interaction and continuous monitoring, thus optimising the identification and resolution of academic or administrative problems in a timely manner. The key innovation lies in automated appointment control and student progress monitoring, which promotes more effective collaboration. Using a mixed methodology, with qualitative surveys and quantitative analysis, improvements in operational efficiency and educational quality will be evaluated, fostering an academic environment aligned to new technologies and promoting continuous process improvement.



Innovation, Quality, Project Management, Degree

Evaluation of the relationships between compression resistance, point load and indirect traction of aggregates of the built heritage in San Francisco de Campeche

Evaluación de las relaciones entre las resistencias a compresión, carga puntual y tracción indirecta de agregados del patrimonio edificado en San Francisco de Campeche

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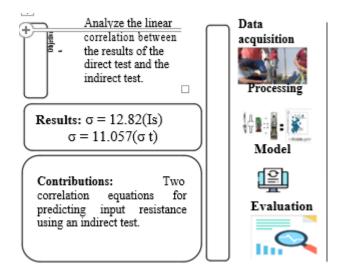
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Abstract

This research work analyzed the properties of stone aggregates, focusing on uniaxial compressive strength, point load strength tests and indirect tensile test. Seybaplaya, a port in Campeche, Mexico, was the site of sample collection from an active bank. The results showed that the compression varied between 8.6 - 84.7 MPa, the point load between 0.52 - 7.12 MPa, and the indirect tension between 0.672 - 10.839 MPa. These properties are essential for designers and builders, providing guidance on the importance of aggregates in structures.



Simple uniaxial compressive strength, rock point load index and indirect tensile in rocks

Morphological, physical and chemical characterization of the maguey Pitzometl (Agave marmorata) from Zapotitlán Salinas, Puebla

Caracterización morfológica, física y química del maguey Pitzometl (Agave marmorata) de Zapotitlán Salinas, Puebla

LÓPEZ-VIGIL, Miriam Silvia, SANTOS-ALVARADO, Héctor and ISLAS-TORRES, Héctor

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Abstract

The genus *Agave* (scientific name of Maguey) is endemic to America, being an important cactus that has about 200 species of which Mexico, a Megadiverse country, is home to 150 of these. In the Tehuacán-Cuicatlán Biosphere Reserve, 15 species have been located, of which 8 are endemic (García-Mendoza, Franco-Martínez, 2022). The present work presents the morphological characterization by measuring the length and width of the stalk, leaf thickness, number of spines, height of the apical spine, height and diameter of the plant, leaf area, color and layers of developed stalks of the Maguey Pitzometl from the Zapotitlán Region, Salinas, Puebla, which is one of the most important reservoirs of Agave marmorata, contributing to determining its particular morphological, physical and chemical attributes.

Objective	Methodology	Conclusions
To carry out the morphological, physical and chemical characterization of the Maguev Pitzomed from the Zapotitlán Region, Salinas, Puebla.	The interest of this study is the Maguey Pitzometl plants (Agave marmorata) from the Zapocitián Salinas Region, Puebla, where it was characterized morphologically in the field and physically and chemically in the laboratory	Results of the morphological, physical and chemical characterization of the Maguey Pitzometl from the Zapotitlán Region, Salinas, Puebla, which is one of the most important reservoirs of Agave marmorata, are presented, contributing to determining its particular attributes.

Characterization, Morphology, Endemic

Implementation of a mobile application for the dissemination of tourism in México

Implementación de aplicación móvil para la difusión del turismo en México

SÁNCHEZ-JUÁREZ, Ivan Rafael, PAREDES-XOCHIHUA, Maria Petra and MARTÍNEZ-PÉREZ, José Randall

Tecnológico Nacional de México/ITS de San Martín Texmelucan

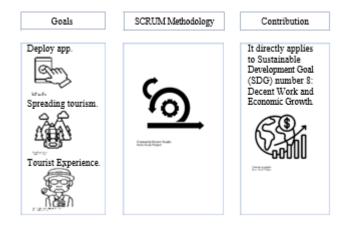
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Abstract

The arrival of international tourists to Mexico increased by 10% in 2023 compared to 2022, with an arrival of 42 million 153 thousand visitors in 2023 and 38 million 325 thousand in 2022, a difference of 3 million 828 thousand visitors; This reflects the growth in the tourism sector and contributing to the country's economy. The article presented below contains the implementation of a mobile application that allows the dissemination of tourist places in Mexico. The mobile application, developed for the Android operating system, has different types of users, including the owner or manager of the place and the tourist; The owner can record the information of the place such as the address, hours, services and events among others. The tourist will be able to see this information and leave comments of each place, allowing the tourist to have a better organization of the trip itinerary.



Application, Implementation, Tourism dissemination

Augmented reality as a support for tourism promotion

Realidad aumentada como apoyo para la difusión del turismo

SÁNCHEZ-JUÁREZ, Ivan Rafael and PAREDES-XOCHIHUA, Maria Petra

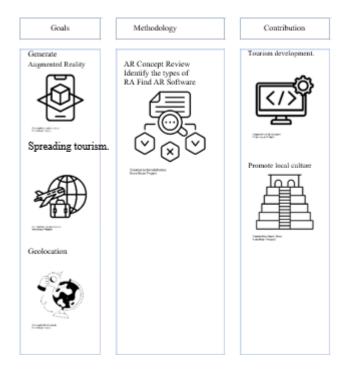
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Abstract

Currently, Augmented Reality (AR) facilitates interaction between virtual environments and the physical world, allowing both to blend seamlessly through technological devices such as webcams, mobile phones (iOS or Android), tablets, among others (Grapsas, 2019). Therefore, the aim is to develop an augmented reality project to promote tourism in a municipality of the state of Puebla. For this purpose, an analysis of the different types of augmented reality available will be carried out, including marker-based augmented reality, geolocation-based augmented reality, object recognition and projected augmented reality, with the aim of providing a better experience for tourists. This article presents the different characteristics of each type of AR, showing application examples, and some of the tools necessary for the development of augmented reality applications.



Augmented reliaty, Geolocation, Tourism

University student skill's monitoring system

Sistema de seguimiento de habilidades de estudiantes Universitarios

MONTECILLO-PUENTE, Francisco Javier, CRUZ-LOERA, María de la Luz and LARA-RIVERA, Agustin

Tecnológico Nacional de México Campus Salvatierra

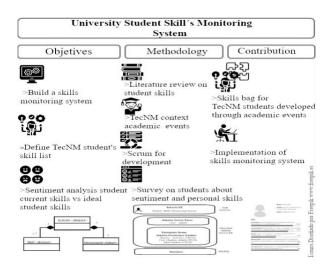
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Abstract

Job collocation is a great challenge for professionals; companies look for profiles with skills and verifiable work experience. Univesities and Education Institutions have this great responsibility. Mechanisms they have to develop skills are: educational program, professional practices and thesis. This work is aimed at determining the skills that students of the Information Technology and Communications Engineering degree at the Tecnológico de México Campus Salvatierra can develop. The proposed work can be applied to any higher education educational institution. To determine the skills students can develop, a review of the different programs and calls for students to participate was carried out. The purpose of the proposed monitoring system is to record skills that students have throughout their academic life. Among which are academic competitions, research projects, training, certifications, communication, languages, work experience, class projects, class grades and hobbies.



Professional skills, Software development, sentiment analysis

Augmented reality in education: Transforming learning through technology

Realidad aumentada en la educación: Transformando el aprendizaje a través de la tecnología

CRUZ-LOERA, Maria De La Luz, MONTECILLO-PUENTE, Francisco-Javier and LARA-RIVERA, Agustín

Tecnológico Nacional de México Campus Salvatierra

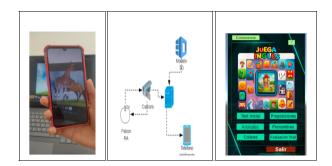
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Abstract

Augmented Reality (AR) overlays digital information nto the real world, enriching users' interaction with their physical environment. Unlike Virtual Reality (VR), AR enhances the physical world with interactive content, offering a valuable tool for education by boosting learning and information retention. This study examines AR's application in English language learning, specifically using Unity, a cross-platform game engine, and Vuforia, an AR development platform, to create an interactive educational tool. Traditional methods like lectures and textbooks often fail to engage students, reducing motivation and knowledge retention. AR, through its multisensory approach, captures students' attention and deepens their understanding of concepts. The findings demonstrate AR's transformative potential in language learning by making it immersive and interactive. This project illustrates how AR technology can overcome challenges in traditional education, providing an innovative way to enhance student engagement and learning outcomes.



Augmented reality, Immersive, Interactive

Lung and colon cancer detection with InceptionResNetV2: a transfer learning approach

Detección de cáncer de pulmón y colon con InceptionResNetV2: un enfoque de aprendizaje por transferencia

OCHOA-ORNELAS, Raquel, GUDIÑO-OCHOA, Alberto, GARCÍA-RODRÍGUEZ, Julio Alberto and URIBE-TOSCANO, Sofia

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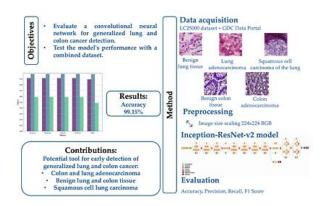
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Abstract

Lung and colon cancers are among the most common and lethal types of cancer. It is possible for individuals to develop both cancers simultaneously, as risk factors such as smoking, which is a leading cause of lung cancer, can also contribute to poor dietary habits, thereby increasing the risk of colon cancer. Traditionally, the diagnosis of these cancers relies on biopsies and subsequent laboratory analysis. This study proposes an Inception-ResNetV2-based model for accurately classifying lung and colon cancer using histopathological images. The dataset analyzed consists of 25,000 images categorized into five cancer types: Colon Adenocarcinoma, Colon Benign Tissue, Lung Adenocarcinoma, Lung Benign Tissue, and Lung Squamous Cell Carcinoma. The developed approach achieved an accuracy of 99.15%. The model's performance is further enhanced through the use of Local Binary Patterns (LBP), improving both accuracy and computational efficiency. Additionally, the explainable AI method SHAP is employed to demonstrate the contribution of each feature to the predictive analysis



Lung cancer, Histopathological, InceptionResNet, Colon cancer

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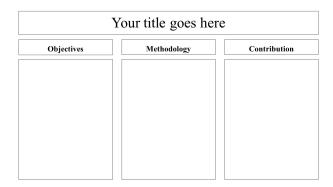
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