# SUSTAINABLE DEVELOPMENT GOALS

8 DECENT WORK AND ECONOMIC GROWTH

# Partnership for the productive development of afro-entrepreneurial youth

Between January and April 2023, the Business Administration and Entrepreneurship program at UPC, in partnership with the House of Culture of Chorrillos, conducted workshops aimed at strengthening the skills of young people aged 15 to 29 from Afro-descendant communities in Lima and Callao. The goal was to empower them to defend and promote their rights and motivate them to participate in intercultural politics.

Various techniques and dynamics were employed during the workshops contributing to the exposure of the plurality of entrepreneurial initiatives.

# Nuevas Voces Fest
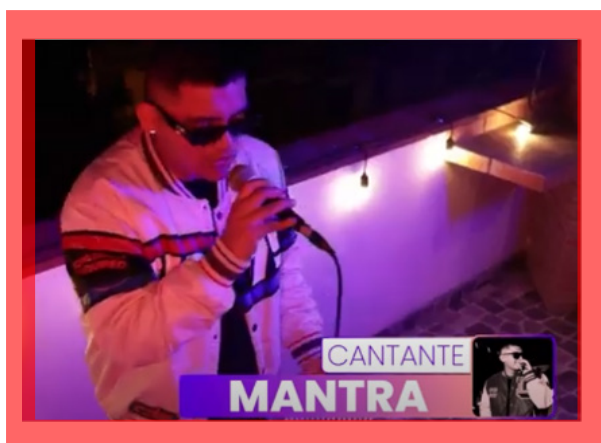


On June 29, 2023, the Communication Audiovisual and Interactive Media program at UPC participated in the Nuevas Voces Fest. The goal was to establish a promotion system for emerging musicians, supporting them by enhancing the visibility and dissemination of their art.

This event showcased emerging musical artists through an online broadcast on the streaming platform Twitch. The broadcast included music videos, performances, interviews, and music recommendations sent by followers and musicians who wanted to promote their work.

# Code of Ethics for Social Entrepreneurship





During the two academic semesters of 2023, students from the Administration and Human Resources program at UPC engaged with over 50 initiatives that applied for the Protagonistas del Cambio [Protagonists of Change] program, UPC's social responsibility initiative, with the objective of developing a code of ethics for an enterprise with social and environmental impact.

In this academic endeavor, students worked with organizations previously registered at the national level, providing counseling and support in developing their code of ethics. This task allowed students to engage in real-world work with an organization and empathize with social issues.

# Applicability report of B Companies to SMEs and Microenterprises

Throughout the two academic semesters of 2023, students from the Administration and Human Resources program at UPC created a report on the applicability of B Companies (companies that meet high standards of social and environmental performance) to small and microenterprises (Pymes, Mypes). The students assumed the role of business consultants.

During the activity, they applied the impact assessment tool provided by the B system, familiarized themselves with sustainability terminology, and recommended improvement proposals to reduce impacts. A total of 160 small and microenterprises benefited from this activity.

# Program "Capacitación y Entrenamiento a Camareros Junior" [Junior Waiters Training and Coaching]
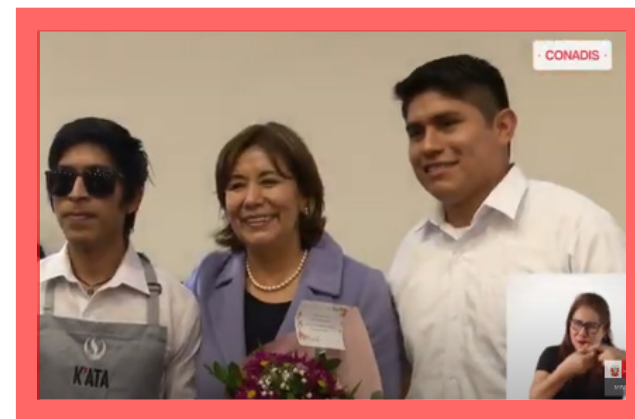


In November 2023, the School of Hospitality and Tourism Administration at UPC successfully concluded the third edition of the volunteer program "Capacitación y Entrenamiento Camarero Junior" [Junior Waiters Training and Development]. This program, which began in 2021, aimed to train vulnerable youth and adults to access job opportunities in the restaurant sector.

In this special edition, UPC worked closely with the National Council for the Integration of Persons with Disabilities (CONADIS), reaffirming its commitment to inclusion and comprehensive community education.

Students played the valuable role of mentors during the 10-week program, providing guidance and support to participants. This event not only represented an individual achievement for the participants but also the success of an initiative that promoted inclusion and community engagement in social responsibility projects.

The event was attended by the Minister of Women. Through this initiative, UPC reaffirmed its commitment to forming professionals with a socially conscious perspective, promoting student participation in initiatives that enhance their education and positively contribute to society.

# City to Countryside Tourism Development Project Contest - 3rd Edition

The School of Hospitality and Tourism Administration at UPC and StartUPC, in partnership with the Ibero-American Institute of Rural Tourism (IBEROATUR), invited students from tourism, hospitality, gastronomy, or related fields from public and private universities to participate in the 3rd Edition of the City to Countryside Tourism Development Project Contest. This virtual event took place on November 22 and 23.

Selected projects had as their main characteristic to propose new employment and income alternatives to diversify the agricultural and agro-industrial activities of rural inhabitants, demonstrating benefits for both the business owners and the rural agricultural communities through the projects.



The goal of this competition was to foster projects that promote tourism flow to areas with great potential and development, with a special focus on rural tourism, such as agrotourism, wine tourism, gastro-tourism, and other related categories.

# My Consultant UPC
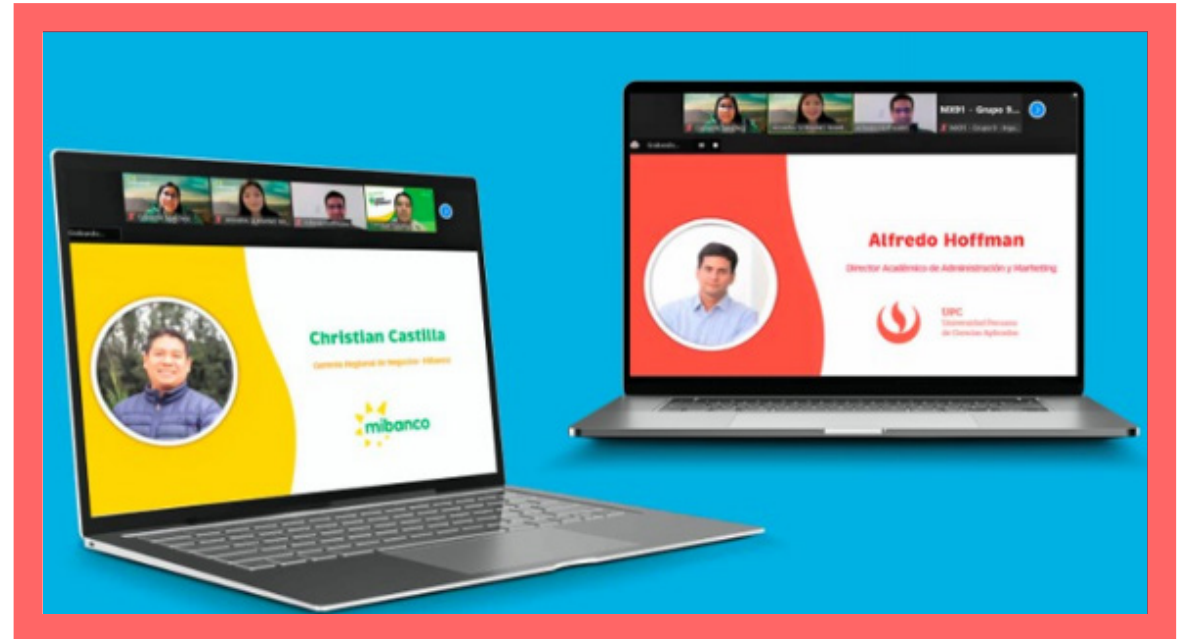




The Administration and Marketing program at UPC, in partnership with Mi Banco, launched the "My Consultant UPC" program. This initiative aimed to benefit micro, small, and medium-sized entrepreneurs across the country and students who applied their marketing knowledge by providing free, personalized consultations to real businesses during the academic term.

This initiative sought to ensure that the companies that participated in the program would benefit from the students' knowledge. Each participating business was assigned a group of students from the Marketing Plan Design course. At the end of the course, the students presented a Marketing Plan to the business owner, which they had developed collaboratively.

# Students from the Mining Management Engineering program successfully participated in congresses and workshops

Students from the Mining Management Engineering program at UPC took part in the following activities and training workshops during the first semester of 2023-1:

- National Congress of Mining Engineering Students (CONEIMIN).
- Solid Waste Management Mining encounter.
- Solid Waste Management workshop by UPC Amautas Group.
- Training for outstanding students.

All these activities aimed to strengthen theoretical and practical knowledge in responsible and sustainable mining, update knowledge on responsible mining projects, strategic management, and solid waste management (SWM).

# Accounting and Tax Support Nucleus (NAF)



Núcleo de Apoyo Contable y Fiscal (NAF)



Núcleo de Apoyo Contable y Fiscal de la Universidad Peruana de Ciencias Aplicadas (NAF UPC)

To promote a tax culture in our country, students from the Accounting and Administration program at UPC participated in the "Accounting and Tax Support Nucleus (NAF)" program.

This program provided free tax guidance to individuals and small businesses. It emphasized the importance of timely tax payment and declaration. For this purpose, students received 20 hours of training from SUNAT. From January to September 2023, 3180 guidance sessions were conducted.

Through this initiative, students developed soft skills such as effective communication, research, citizenship, and social responsibility, highlighting the importance of formalization in our country and how taxes contribute to building more schools, hospitals, and roads.

# Coaching for Social Entrepreneurs

In order to provide support to six social entrepreneurs participating in the "Protagonists of Change" program, faculty from UPC's Administration and Human Resources program participated in the "Coaching for Social Entrepreneurs" initiative, where they provided their support to those social entrepreneurs who participated in the PDC 2023.

This activity fostered empathy and solidarity between the six volunteer faculty members and the social entrepreneurs, while also strengthening the program's connection with the participants.

# Is a Political Scientists Association necessary?

On September 29, 2023, the Political Science program at UPC participated in a panel discussion: "Is a Political Scientists Association necessary?"

This event took place in the Graduate Hall of the School of Law and Political Science (FDCP) at the Universidad Nacional Mayor de San Marcos, aiming to debate an existing bill in Congress proposing the creation of a Political Scientists Association in our country.

The director of the program, Omar Awapara, as representative of the university, and the future professionals in political science, argued against the proposal, citing concerns about the employability of Political Science students.

# Training for teachers of schools in Metropolitan Lima

For the fourth consecutive year, the Department of Humanities at Universidad Peruana de Ciencias Aplicadas (UPC) carried out the project "Training for Teachers of schools in Metropolitan Lima", aimed at enhancing teachers' skills in digital writing, research, and the use of modern methodologies in written communication.

In this new edition, which is entirely free for participants every year, three workshops were offered:

- Use of writing in project-oriented learning.

- Pedagogy and functionality of argumentation in the classroom





- Development of qualitative research using content analysis technique.

- The focus of this project was the contribution to the professional development of participating teachers in order to positively impact the education of their students.
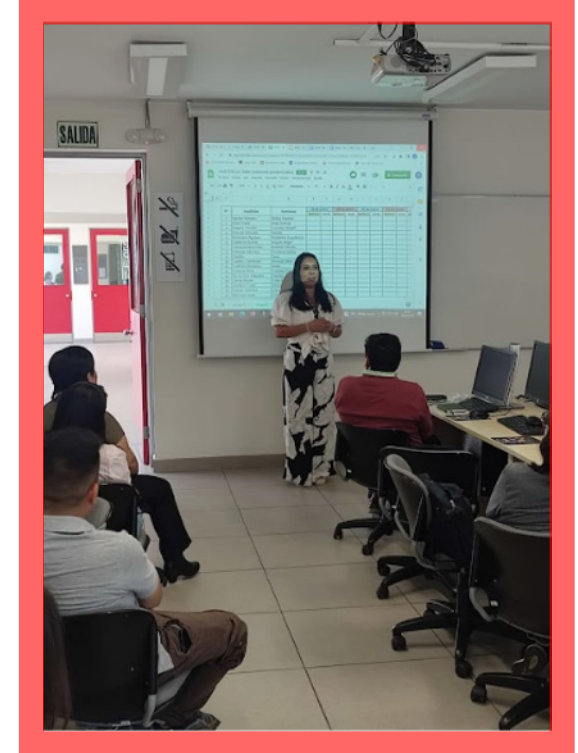
# UPC joins the Romero Foundation as a partner in the "Generación Plateada" Program

In alignment with its commitment to continuous education, UPC joined the "Generación Plateada" (Silver Generation) program, an initiative by the Romero Foundation aimed at enhancing the knowledge of adults over 50 years old. The "Generación Plateada" program offers participants the opportunity to access specialized talks and training sessions, as well as educational resources designed specifically to strengthen skills that boost employability and entrepreneurial spirit. Topics covered include the development of digital skills, entrepreneurship, health, wellness, and other relevant subjects. Since 2023, UPC has contributed to this initiative by providing 11 "Silver Talks", aiming to support the personal and professional development of the program's participants. These educational sessions, conducted both in-person and virtually, were led by specialized professionals from UPC.

# UPC Joins Alicorp, Mi Banco, Cargill, and Juguete Pendiente to Promote Communal Kitchens Initiatives

In a collaborative effort to foster entrepreneurial spirit and contribute to the sustainability of communal kitchens initiatives, the Universidad Peruana de Ciencias Aplicadas (UPC), Alicorp, Mi Banco, Cargill, and Juguete Pendiente teamed up for the "Ollas que Desarrollan" program.

The aim of this initiative is to provide training and support to the leaders of communal kitchens, helping them establish complementary enterprises that generate additional income and strengthen the autonomy of their communities.

During this phase of "Ollas que Desarrollan", 110 leaders representing 55 communal kitchens were trained and mentored in various key areas such as sales, value proposition, customer knowledge, finance, and accounting.

# UPC joins the fight against anemia through the "Anemia Zero" Campaign

As part of its commitment to combating anemia, the Universidad Peruana de Ciencias Aplicadas (UPC) conducted the "Anemia Zero" campaign in 2023 in partnership with the NGO Peruanos por Peruanos. The first phase of this initiative aimed to detect and prevent anemia in children of employees from the institutions UPC, UPN, Cibertec, and Laureate, aged between 0 and 3 years.

During the months of July and November, employees had the opportunity to bring their children to the UPC facilities for a free anemia detection evaluation. Additionally, specialized nutritional counseling was provided to promote proper nutrition and prevent future cases of anemia.
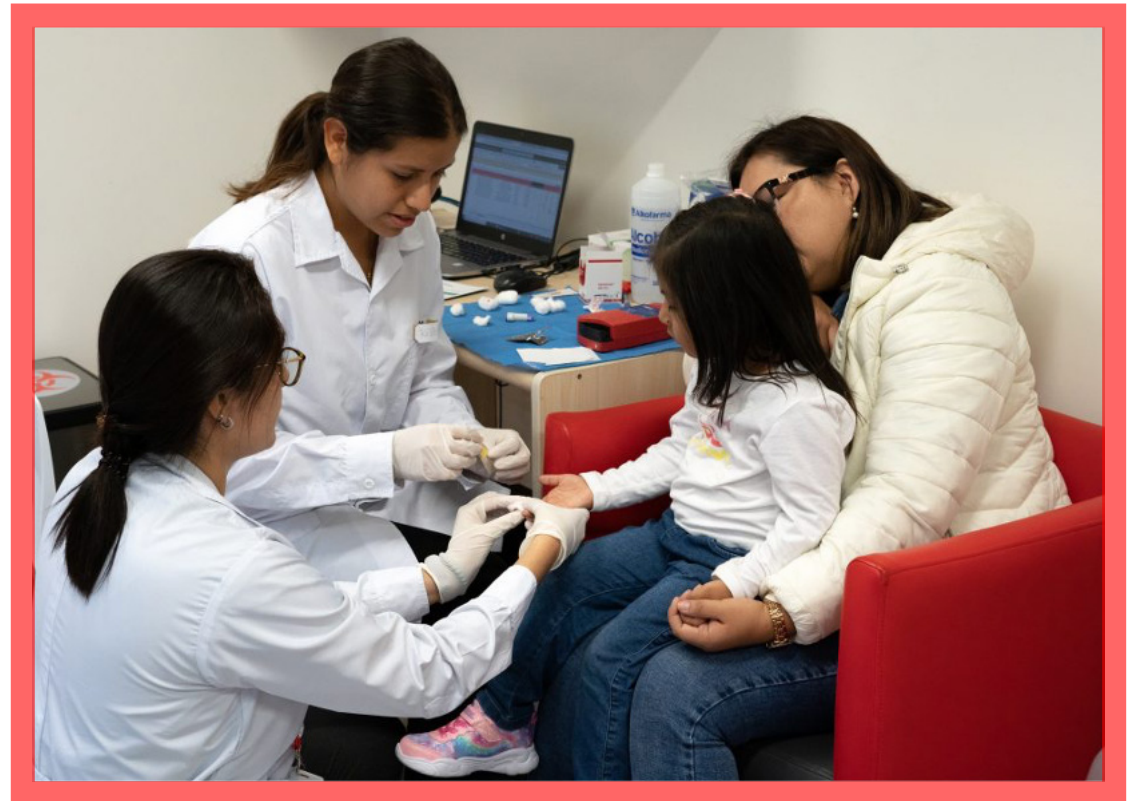
# Analyzing sustainability indicator for Chinese mining sector

**Authors:** Li, Y.; Barrueta Pinto, M.C.; Kumar, D.T.

**Abstract:** In this study we explore the elements that integrate the profiles of university graduates in Peru of the audiovisual communication career and the implications of the sociocultural context in their graduate research. The objective is to identify the profiles of university graduates and the implications of the sociocultural context during the development of the process.
With qualitative methodology, the interpretative paradigm model and using the semi-structured interview technique, we identify their perceptions. The conclusions remark that the elements that integrate these profiles have particularities that must be considered when entering the labor market.

# Process Improvement Model based on Lean Manufacturing and Kaizen to Increase Machine Availability at a Plastics Company

**Authors:** Caso-Murillo, N.; León Mejía, R.; Quiroz-Flores, J.

**Abstract:** The case study is a company that produces and sells plastic containers. Through a production time assessment, the low availability of injection machines was identified as the mam problem. The availability rate for these machines was set at 80.19%, which represented a relevant issue since the worldwide standard is 90%. These low availability rates are mainly due to machine breakdowns, representing 9.87% in lost revenue for the company. To improve machine availability, this study proposed an improvement model combining Lean Manufacturing tools with Kaizen, which refers to continuous process improvement. The model is also integrated with Ergonomics concepts aimed at improving working conditions for operators. Hence, if improvements are achieved regarding human capital, machine availability will also improve. Within this context, the proposed model was piloted at the company, increasing machine availability by 6.8%, reducing lost revenue by 3.9%, and increasing company profits by 13.12%.

# Inventory control model based on Big Data, EOQ, ABC and forecast to increase productivity in a hardware SME

**Authors:** Within the commercial sector, SMEs represent more than 90% of all companies; they are responsible for 50% of GDP and generate between 60% and 70% of employment worldwide, which is why they are critical in the Peruvian economy. However, through an exhaustive review of the literature and sectoral analysis, we concluded they have a high risk of failure in the short term due to various problems, such as poor inventory management. In Peru, the provisions for carrying out inventories usually have a ratio of between 1% and 1.4% of the total inventory stock; thus, SMEs belonging to the hardware sector more frequently present this problem that affects the profitability of their companies. For this reason, the need arises to design an inventory control model that increases the productivity of hardware SMEs. After the pilot implementation of the first component, an increase in distribution efficiency of 11% is achieved, and its effectiveness is supported by simulating the entire model, obtaining the same results.

# Strategic Digital Transformation model that allows increasing the profitability of a logistics SME in Lima-Peru through the use of Digital Canvas and Big Data to promote electronic commerce

**Authors:** Pérez Sono, Mauricio Eduardo, Zapata Díaz, Geinner Aldair, Ramírez, Valdivia, Cesar

**Abstract:** During the Covid-19 pandemic, social immobilization was implemented in most economies as a measure to reduce the level of infections, which had an impact on the consumption of products and services, thus affecting the competitive position of companies in general. ; Given this situation, a measure that companies implemented was the development of electronic commerce as a new sales channel, and in the Peruvian case growth rates of over 130% were achieved, however, the growth rates of this sales channel were have been slowing down in recent years due to various factors, among which are that consumers consider that this sales channel has a high price, the lack of traceability in the delivery process, dissatisfaction with deliveries and various factors that are attributable to the last link in this productive chain, which are the light logistics companies. In the Peruvian case, light logistics companies constitute 99.5% of the total companies in the local market, however, this is where the conflict arises because 83.5% of these companies are informal, 90% have a period of maximum life of 10 months, they lack structured processes and technology that adapts to the needs of

# Strategic Digital Transformation model that allows increasing the profitability of a logistics SME in Lima-Peru through the use of Digital Canvas and Big Data to promote electronic commerce

clients, among other factors, which has prevented continued market development; Thus, the objective of this research is to propose a model to increase the productivity and competitiveness of logistics SMEs based on digital transformation that allows them to align their strategy and processes to the needs of the new sales channel (e-commerce) in an agile way. and fast, taking into account that there is a gap in the existing models since in the Peruvian case the existing digital transformation models take between 3 and 4 years to achieve satisfactory results.

**Keywords:** Digital Transformation, Big Data, Digital Canvas, SMEs, Profitability.

# Production process improvement model to increase productivity by applying Lean Six Sigma methodologies and Lean tools in a Peruvian pastry MSE

**Authors:** Alexandra Ludeña Ramos , Katherine Vargas Cermeño, Cynthia Carola Elias Giordano, Carlos Luis Torres Sifuentes and Carlos Cespedes.

**Abstract:** In Peru there were 2,608,343 micro-enterprises, which represents 95.3%, 3.8% correspond to small companies and 0.6% to large and medium-sized companies and 0.3% to the administration public. During the Covid-19 pandemic, several companies were affected, causing them to declare bankruptcy or change their business model to continue operating. Peru's GDP decreased by -61.4% in the accommodation and restaurant sector and by -9.9% in the manufacturing sector, due to the fact that people had to enter a state of quarantine or isolation to avoid contagion . Therefore, currently the economy of Peru continues on the path of recovery, in the different economic activities. For this reason, in order to help microenterprises continue to produce and improve their processes, this research is focused on productivity within the cake production process of a microenterprise and its purpose is to propose a management model that allows increasing productivity using the Six Sigma and making use of various lean tools such as 5S, VSM, Poka Yoke, KPIs and techniques such as the 5 whys. On the other hand, some of the problems that a microenterprise currently faces are unsatisfied demand, lack of documentation in the production process, waste of inputs and poor distribution of work areas.

**Keywords:** ; Six Sigma; 5S method; MSE; pastry .

# Current research trends on the use of artificial intelligence in human capital management in business organizations during the years 2018 and 2023

**Authors:** Verónica Patricia Chávez De la Vega, Diego Rojas Rivera, Allison Sharon Castro Ventura,, Victor Alberto Mendieta Flores, Leonardo Luis Paredes Delgado, Omar Alexis Larios Soldevilla, y Julio Ricardo Moscoso Cuaresma.

**Abstract:** The objective of the research is to analyze and report the relationship and impact of the use of artificial intelligence in the management of human capital in organizations in the period 2018- 2023. Artificial intelligence is in a process of evolution and is constantly present in today's world. Artificial intelligence (AI) is defined as the execution and performance of tasks with a quality structure, which would also be performed by a human. With the results obtained about artificial intelligence, it gives us a clearer picture of the impact of the use of AI in companies in which it can replace and/or enhance human capital. However, based on the investigation, it is stated that the data obtained in the face of a possible replacement of the AI in the functions and tasks carried out by the human being are replaced in their entirety, it could be said that it will not materialize as such, but it will. improvements will be obtained in the efficiency of the tasks and objectives established by the organizations. Likewise, today's world shows great interest in the application of AI, due to the great support that this will mean. Also, in the research it provides data which can be justified in the short or long term, highlighting that AI are sciences that seek to create highly capable technology for an innovative world.

**Keywords:** artificial intelligence, human capital, organizations, replace, enhance.

# Proposal for the implementation of a safety plan integrating the Deming cycle to minimize scaffolding accidents at height in a multifamily building

**Authors:** A. E. A. Palomino, K. R. M. Paima and H. R. Castañeda

**Abstract:** The article below presents the application of a safety plan based on the Deming cycle, also known as the PDCA (Plan, Do, Check, Act) cycle, the objective of the research is to minimize scaffolding fall from height accidents in the construction industry workplace. This methodology is effective in improving the quality and productivity of various processes through a continuous improvement approach. The application will be carried out through a series of surveys of workers in a construction company. The implementation process begins with a planning phase in which goals and objectives to reduce scaffolding accidents are defined. The next phase is Doing, in which the designed safety plan is put into practice. Safety measures for scaffolding, personnel training, etc. are implemented. In the third phase of verification, the results of the measures adopted are evaluated, analyzing the data collected in the previous phase to check whether the proposed objectives have been achieved. Finally, in the action phase, measures are adopted on the basis of the results and analysis of the verification phase. If the objectives have been achieved, the measures are implemented on an ongoing basis. If not, areas for improvement are identified and a new action plan is developed to address them. The cycle is continuously repeated and lessons learned are applied in each iteration. Consistent and systematic application of the Deming cycle leads to a gradual improvement in scaffolding safety, thereby reducing the number of accidents caused by falls and contributing to a safer working environment.

# Model for Recognition of Personal Protective Equipment in Construction Applying YOLO-v5 and YOLO-v7

**Authors:** Manuel Rios Alvarez; Cesar Quevedo Vega; Lenis Wong

**Abstract:** Due to the nature of activities carried out during a construction, companies find it necessary to stablish controls to avoid accidents caused by the lack of personal safety equipment. However, this process often involves manual supervision carried out by a specific staff. Due to this, there is no efficient control, nor constant monitoring to prevent this type of accident. For this reason, a model is proposed that recognizes the use of personal protective equipment in construction through 2 deep learning models: YOLO-v5 and YOLO-v7. Four stages were carried out: (i) data collection, (ii) data processing, (iii) training and (iv) evaluation of results. A dataset of 743 images composed of 6 classes was used: boots, glasses, gloves, helmet, person, and safety vest. The results show that the Yolo v7 model obtains a 0.873, while Yolo v5 obtains a 0.796. These values represent the combination of precision and recall in mAP@0.5, therefore v7 was more optimal than Yolo v5. Additionally, the study shows which is the recognition pattern for both algorithms, this pattern helps us to reinforce the detection of objects through training.

# Association between supplementation with vitamin A, iron and micronutrients with adequate psychomotor development in children from 9 to 36 months in Peru

**Authors:** Chaponan-Lavalle, Andres; Randich, Karla Hernandez; Araujo-Castillo, Roger V.

**Abstract: Background:** Worldwide, it is estimated that 52.9 million children <5 years of age experience delayed psychomotor development, which is associated with multiple factors. Our primary objective is to evaluate whether there is an association between supplementation with Vitamin A, Iron, and Micronutrients and Adequate Psychomotor Development in children aged 9–36 months at the national level in Peru. Methods: The study was an observational, analytical, cross-sectional study based on the secondary analysis of the Demographic and Family Health Survey databases from 2018 to 2020. The independent variables include the consumption of Vitamin A, Iron, and Micronutrients. The dependent variables encompass Motor Development in children aged 9–18 months, Psychological Development in children aged 9–18 months, and Psychological Development in children aged 19–36 months. Results: The study included a total of 24 838 participants. In the adjusted regression model, the factors associated with adequate motor development between 9 and 18 months of age were: region of residence, overcrowding, and exclusive breastfeeding. For adequate cognitive development between

# Association between supplementation with vitamin A, iron and micronutrients with adequate psychomotor development in children from 9 to 36 months in Peru

9 and 18 months of age, the associated factors were: vitamin A consumption, mother's education, child sex, delivery complications, and complete vaccinations. Regarding adequate psychological development in children aged 19–36 months, the associated factors were: mother's education, maternal employment, child sex, and birth weight. Conclusions: There was no association found between nutritional supplementation and adequate development, except for the relationship between Vitamin A consumption and adequate psychological development in children aged 9–18 months. Therefore, further research, such as cohort studies and clinical trials, is suggested to corroborate this association.

**Keywords:** Vitamin A; Micronutrients

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# Model to increase the productivity of the logistics processes of an SME that markets construction products by applying Lean

**Authors:** Lara Dávila, Anthony Brian; Pedroza Allauca, Marjorie Briyit; Arambarri, Jon; Giordano, Cynthia Elias; García, José Antonio Rojas

**Abstract:** In Peru, SMEs represent 95% of established companies, which contributed to 47.7% of the economically active population, 21% of the GDP in 2022 and 99% of formal employment; However, despite the importance of this type of company, informality grew from 70% prior to the COIVD-19 pandemic to 85% in 2022; Within this type of company are the so-called hardware stores, of which there are more than 18, 000 nationwide, generating more than 55, 000 jobs. This sector grew 128% prior to the Covid-19 pandemic. However, the mandatory closure of commercial activity due to the pandemic contracted its growth; One of the strategies used by hardware stores to recover their growth has been based on the use of digitalization of some of their processes, which has increased their sales and profitability significantly, however, there are several challenges to face, among which are excessive inventory costs, the lack of structured processes, the use of technology to promote this business in the era of electronic commerce and development of personnel capa-

# Model to increase the productivity of the logistics processes of an SME that markets construction products by applying Lean

bilities that allow us to face an inflationary context and loss of purchasing power of Peruvian consumers. Therefore, the objective of this research is to contribute to the innovation of the logistics processes of hardware stores with the aim of increasing their productivity and profitability through the application of Lean Six Sigma, Digital Transformation and Activity Based Costing (ABC) methodologies.) in post Covid-19 times.

**Keywords:** Activity Based Costing; Digital Transformation; hardware SME; Lean Six Sigma; Productivity

# Methodology to increase productivity in a metal-mechanical Tee production company using Lean Manufacturing, Systematic Layout Planning and TOPSIS

**Authors:** Cairo Tineo, F.A.| Condori Dávila, M.G.| García, J.A.R.

**Abstract:** The manufacturing sector is one of the main engines of the Peruvian economy, this sector in 2022 will represent 11.7% of the Gross Domestic Product (GDP) and within this sector is the manufacturing subsector of various metallic materials, which It contributes an average of 0.6% to the national GDP, this value being constant in recent years. This sector is of utmost importance due to the various products it generates: machinery, equipment, facilities and supplies that are used in the various industrial sectors: construction, transportation, electricity, fishing and its main supplier, mining. In this context we find mypes, which, although they represent only 9.6% of the total number of Peruvian companies, are a critical group due to their high employability and low productivity which is affected, among others, by the following factors: a) disarticulation business, b) inappropriate use of technology, c) poor operational capabilities, d) limited management capabilities, e) poor planning of operations. Therefore, one of the main needs of this subsector is to have a management model

# Methodology to increase productivity in a metal-mechanical Tee production company using Lean Manufacturing, Systematic Layout Planning and TOPSIS

that allows improving the productivity of companies in the short term using appropriate management tools; Therefore, the objective of this research is to contribute to the innovation of production processes and plant distribution with the aim of increasing the productivity and profitability of this type of companies through the application of Lean Manufacturing, Systemactic Layout methodologies. Planning and Topsis.

# Management model to improve the dispatch compliance of a textile SME using Lean Manufacturing, Systematic Layout Planning and Digital Transformation methodologies in the era of nearshoring

**Authors:** López Aponte, K.A. | Valdivieso Yucra, L. | Arambarri, J. | Giordano, C.E. | García, J.A.R.

**Abstract:** The manufacturing sector is one of the main engines of the Peruvian economy, and within this sector is the textile sector, which contributes 2% to the national GDP. This sector has been growing in recent years and during the first Nine months of 2022 generated a growth of 24% compared to the same period of the previous year; However, despite its growth, this sector is made up mostly of SMEs, which constitute 96.2% of the total number of companies and whose informality is around 80%. Additionally, this type of company has a scarce culture of innovation and financing problems, which makes it difficult to take advantage of the advantages that nearshoring is generating by generating the opportunity to increase sales in the short term by displacing the main producers in Asia who supplied the North American market with closer suppliers, among them which is located in Peru, which is recognized for the quality of its textiles, therefore, the objective of this research is to contribute to the innovation of the order preparation processes of a textile company with the objective of increasing productivity and profitability. of this type of companies through the application of Lean Manufacturing, Systemactic Layout Planning and Digital Transformation methodologies.

**Keywords:** Lean manufacturing, Systematic Layout Planning, Digital Transformation, SMEs, textile industry.

# A systematic review of the impact of smart ports in relation to SDG 9 in the period 2015-2023

**Authors:** Veliz, L.A.T.| Fernandez, L.Z.C.| Condori, G.U.| Shinzato, L.H.G.| Fernandez, P.A.Q.| Holgado, E.M.V.| Gómez, J.E.S.

**Abstract:** In recent years, the need for innovative and sustainable infrastructures has increased in order to comply with the 2030 Agenda for Sustainable Development. In that sense, due to the large flow of goods worldwide and the impact produced by foreign trade operations, smart ports have positioned themselves as one of the catalysts of development and economic growth of multiple countries, as they support trade flows and an ecosystem of related activities. In addition, the digitization of ports produces a huge amount of information that makes them more profitable, efficient and sustainable. As such, smart ports, through the implementation of technologies such as the Internet of Things, blockchain and artificial intelligence, manage to improve the efficiency of port operations. In this regard, this research aims to determine the current research results of the development of smart ports for the achievement of SDG9 globally for the period 2015-2023. The methodology is the systematic review and will be developed under a qualitative and bibliographic approach, for which academic repositories such as Scopus and WoS will be reviewed and analyzed. Within the discussion, the results obtained in relation to the stated objectives are addressed, these suggest that smart ports allow sustainable economic growth, optimize human welfare and have a positive impact on sustainable development. Finally, the conclusions section highlights the implications found after the literature review and the results, as well as recommendations regarding the exploration of this topic in future research.

# Improvement model to increase the efficiency of the sewing area in a textile SME by applying SMED, 5S and Standardized Work - A Peruvian case study

**Authors:** Torres-Mestanza, M.| Guerrero-López, N.| Sáenz-Moron, M.
SDG 8| SDG 9

**Abstract:** The textile industry in Peru is one of the most representative in terms of its contribution to GDP; however, in the last 10 years the industry has suffered a 1.5% annual drop in its share of GDP. This is due to the fact that the sector suffers from a series of deficiencies such as low productive efficiency, which is 70.2%. Faced with this problem, some authors opted for the application of some tools such as SMED, SW and 5s to counteract it. But according to the literature review, there is a lack of knowledge of the application of the mentioned tools in textile SMEs, since SMED and 5s are mostly applied in large companies, while SW has little history of applicability despite being a powerful tool that achieves positive changes in production. Therefore, in order to provide a solution to the problem studied, it is necessary to apply the aforementioned tools. This article proposes an improvement model that aims to increase the efficiency of a textile SME through the applicability of tools such as 5S, SMED and SW. The effectiveness of the model was validated

# Improvement model to increase the efficiency of the sewing area in a textile SME by applying SMED, 5S and Standardized Work - A Peruvian case study

with the use of the simulation developed in arena software, obtaining as main result that the efficiency of the sewing area in the textile SME increased from 64.71% to 80%. This leads to the conclusion that the proposal manages to improve the company's productivity, which allows it to generate higher income by making efficient use of its resources.