

Editorial

This volume of the prestigious journal "Research in Computing Science" presents selected papers that discuss Hybrid Intelligent Systems (HIS) and its applications. Papers were carefully chosen by the editorial board on the basis of the at least two blinded reviews by the members of the reviewing committee and additional expert reviewers. The criteria taken into account were: 1) originality, 2) scientific contribution to the field, 3) soundness, and 4) technical quality of the papers. It is worth noting that 50% of received papers for this special issue were rejected.

A smart city is a complex phenomenon that has become critical for companies to reach their development locally and internationally. On the one hand, macro factors and market structure influence on business competitiveness, but also in a regional or sector context. The internal aspects and the use of various business tools contribute to the ability to create value in an organization.

Through the different chapters of this book, the reader will be identifying how different organizations in the context of diverse societies deploy their resources and leverage their capabilities to achieve better performance of their various labor skills, marketing, social responsibility and management capacity.

Since human capital is a source of competitive advantage, the book includes chapters related to the analysis of cultural differences as a tool to enrich the human capital and making processes more efficient, the factors that influence job satisfaction and the social capital value as competitive strategy for achieving organizational productivity and competitiveness.

Being competitive enables to a company, a region or a country the power to advance in different areas, contributing to the benefit of a social group, therefore, and organizations need to make efforts that lead to adding value and generate a competitive advantage. The papers in this special issue show progress and challenges related to the future of Smart Cities, as well as the need for the human capital to achieve systemic and comprehensive competitiveness required in the XXI century.

We divide our special issue in two sections: a) Industrial and Technological Applications in a Smart City and b) Daily Life in a Smart City.

Section A: "Industrial and Technological Applications in a Smart City"

In "Automatic Generation of Programs for Data Tables with Batch Least Square Mamdani Inference Systems: Applied in the AWG table", Martín Montes et al., Describes the better use of a technology implementation to improve the use of specialized software in a Smart City; On the other hand Mariana Martínez-Valencia et al. in "Determining the optimal and ideal helmet for an Italian scooter used in a Smart City considering cranial anthropometry and intelligent data analysis", they propose a helmet with ideal and optimal characteristics that save lives in a Smart City when used by the now famous Italian Scooter, which have a high density of vehicular accidents by reach. For his part Humberto Velasco-Arellano in "Forward kinematics for 2 DOF planar robot using linear genetic programming" propose an improvement to the use of a robot capable of being used in various aspects of the industry within the Smart Manufacturing concept. In "Modeling a Roof garden to buildings in a Smart City using equation weight to calculate distribution of load live and weight maximum

on a roof top", Angel Calamert et al. propose the implementation of an intelligent model capable of determining the optimal characteristics of a roof garden including its distribution. On the other hand in "PETS-IoTmL: A dog personalized services using IoT and machine learning", Sandra Lopez et al. propose to improve the tracking of pets within a Smart City through the use of avant-garde technology. In "Predicting airline customer satisfaction using k-nn ensemble regression models", Vicente Garcia et al. propose to analyze the components associated with customer satisfaction in an international airline used by several Smart Cities. Edgar Cossio et al. propose in "Predictive model as a tool when acquiring to certification for client companies and certifying entities with machine learning" improve the management processes in a technology company. In "Realtime recoloring objects using artificial neural networks through a cellphone", Martín Montes et al. propose the use of recoloring of objects for diverse implementations in the industry, something of value and that it would help to diminish accidents in the automotive industry. In "A hybrid intelligent system to improve a health model associated with cardiovascular disease", Ana Martinez implements an intelligent hybrid system to prevent cardiovascular diseases in its initial phase. Finally, to close this section, in "Development of a graphic user interface focused on multicriteria analysis among a plethora of passive exoskeletons to improve the social inclusion of infants in a Smart City", Jorge Restrepo et al. describe how the use of cutting-edge technology in this case the use of exoskeletons could improve the social inclusion of children with some type of motor disability.

Section B: "Daily Life in a Smart City"

In "Blurring Northeast Mexican Societies: an approach to cultural capital and results of the PISA Test", Mónica Mendirichaga et al. Determine the results of the Pisa Test among societies of Northeast Mexico and specify how the state of Nuevo Leon stands out only in terms of its heavy industry, but in public policies adequate for the educational aspect of a Smart City. While in "Conceptualization of a predictive model to analyze the health outcomes of dust events in a society with Köppen climate classification BW", Estrella Molina-Herrera analyzes with various intelligent techniques the effects over time of the dust storm and how they can represent a future problem. In "Happiness and its socio-demographic determinants analyzed with datamining, the case of a community at the north of the border of Mexico", Erika Donjuan specifies by intelligent analysis the quality of life in a Smart City. In "Interconnection APP: Proposal of Interaction with a virtual agent, animations and Augmented Reality: An easy way to learn the use of sensors in Smart Cities", Cesar Lozano et al. specify how to interact with the existing flora in a Smart City using technology, especially augmented reality. In "Leisure Organization Models of Young People in the North Mexican Border", Aida Reyes et al. propose how is the social representation of fun using data mining. In "Patterns of motivational orientation and its relationship with academic performance in university students", Arely López determines the scholar performance through an Artificial Intelligence technique. While in "Apptojo: behavioral relationship between consumers and food merchants, through a CRM mobile application" by Uriel Cambrón et al., it is proposed to use technology to determine a gastronomic outlet and assess the options available. In "Recognition of Colors through use of a Humanoid Nao Robot in Therapies for Children with Down Syndrome in a Smart City", Martha Jiménez et al. propose to help children with down syndrome in a therapy that allows them their best integration.

While in "Sign language recognition based on EMG signals through a Hybrid Intelligent System", Bernabé Rodríguez-Tapia et al. propose to help people with hearing deficit to communicate better in a Smart City. On the other hand, in "Visual association rules on the psychological connection of students with their studies", Erika Morales et al. propose an innovative perspective of the visualization of data associated with psychological type tests in a university. Finally to close this section, in "Development of a Serious Games for Asperger's Syndrome, based on a bio-inspired algorithm to measure empathy performance", Alejandro Lara et al. propose to improve the situation of empathy in children with Asperger's Syndrome in a Smart City.

The volume also contains the regular paper on construction of historic Arabic dictionary.

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