

Checklist of Ergonomic Risks of Teleworking after COVID - 19.

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Abstract

The research carried out has the general objective of designing a checklist that helps teleworking areas to minimize and correct ergonomic risks; developed due to the Covid -19 pandemic. We must understand several concepts before developing the checklist, these are: What is Ergonomics? What is telecommuting? And what are the ergonomic risks caused by teleworking? After understanding the above concepts, we can raise the main problem of our research. The problem of our research is: What are the occupational and ergonomic risks that employees of a University in Puerto Rico represent due to teleworking after the COVID-19 pandemic? The identified occupational and ergonomic risks associated with teleworking are static and non-static postures, repetitive, joint and tissue movements and muscle pain. The data collection of this research will be carried out through a completely online quantitative survey methodology; that were sent to the employees of the different campuses of the university. The quantitative survey methodology will be used in which the problem will be identified, the survey sample is 150 and the response rate of 306 employees for a population of 1500 employees at the University, the data is collected and divided into four (4) elements: Personal Data, Labor Data, Identification of Ergonomic Risks, and Identification of material provided by the employer, which will be analyzed and identifying the risk factors in the different surroundings caused by telecommuting.

Keywords

Telecommuting, Ergonomic risks, Quantitative checklist

Biography / Biographies

Zarail Hernández Sanabria, MBA is an adjunct professor in the Associate Degree in Quality Control Engineering Technology and the Industrial and Management Engineering programs at Ana G. Méndez University, Puerto Rico. She has bachelor's degrees in the Industrial and Management Engineering Universidad del Turabo, Puerto Rico, master's degrees in the Strategic and Management and Leadership and is currently completing a master's in Engineering Management Ana G. Méndez University, Puerto Rico. Her research interests include Ergonomic Method, Process Improvement and Safety and Health education.

Jannette Pérez Barbosa, PE is an assistant professor in the Industrial and Management Engineering program at Ana G. Méndez University, Puerto Rico. She has bachelor's and master's degrees in Industrial Engineering from the University of Puerto Rico, Mayagüez, and is currently completing a Ph.D. in Systems Engineering from Colorado State University (CSU). As the Senior Design Project (Capstone) instructor, her students' projects have been recognized for their excellence in engineering competitions in Puerto Rico. In 2021, a group of her students participated for the first time in the IISE Design Project Competition. She is a licensed engineer and the coordinator of the FE and PE exam reviews for Puerto Rico's engineering association (CIAPR). Her research interests include decision-making methods, engineering education, and process improvement. She was recognized as UAGM's Distinguished Engineering Professor in 2018 and IISE's Southeast Region Outstanding Faculty Advisor in 2021. She is also 2020 CIAPR's Distinguished Industrial Engineer. Her previous engineering experience includes roles as a Technical Service Specialist, Statistician, and Industrial Engineering team leader at Pfizer, where she received several site and corporate awards. Additionally, she has served as a trainer and consultant for several manufacturing and service companies on the island.