IMPLEMENTATION OF THE INFORMATION MANAGEMENT SYSTEM FOR THE MICROORGANISMS´COLLECTION OF OIL INDUSTRY AT PETROBRAS RESEARCH CENTER

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Abstract:

Due to the increasing application of microorganisms in industrial biotechnology processes, it is patent the need to bring together the information under an organized and standardized way for easy access. The Microorganisms´Collection of Oil Industry at Research Center of Petrobras (CENPES-Petrobras) is a scientific work collection , not available for commercial distribution, which is considered one of the strategic activities of the Biotechnology and Environmental Treatment Management at Petrobras Research Center. This need to gather and organize all the material and existing information in a standardized manner, we developed the Information Management System of the Microorgansms´Collection of Oil Industry, which was developed from a relational database that allows searches using different information about the microorganisms, such as basic data source and place of isolation, sponsor, growing conditions and historical lineage, and / or data specific to taxonomic characterization, properties and applications, including images, among others. The mission of the Microorganisms´Collection of Oil Industry is to preserve, maintain and share with the research groups at the R&D Center of Petrobras (CENPES), culture of microorganisms to use in several fields of biotechnology applied in activities as exploration and production of oil and renewable energy. Currently, the collection has more than 200 cultures of microorganisms including, bacteria, fungi and yeasts. These microorganisms are representatives, mostly related to processes such as bioremediation of soils, biogenic acidulation of reservoir, production of biosurfactants, enzymes to produce ethanol from 2nd. generation, among other processes. This paper aims to share the milestones and achievements, as well as those benefits after the implementation of the Information Management System for the Microorganisms´Collection of Oil Industry.

Key words: Microorganims´Collection, Oil Industry, System Management