

论文

煤矿装备云制造资源服务平台研究与应用

王学文, 杨兆建, 丁华, 段雷, 石瑞敏, 李怀文

太原理工大学 机械工程学院, 山西 太原 030024

摘要:

为解决煤机装备设计与制造企业对设计资源的需求, 基于区域性行业需求分析, 阐述了“煤矿装备云制造资源服务平台”建立的必要性和设计特征, 在描述“平台”体系结构、关键技术、开发工具等基础上, 研究了“平台”的设计方法, 并完整描述了“平台”的三大功能体系, 包括针对一般机械装备的通用技术支持系统、针对煤矿装备的技术服务支持系统和关键技术创新支持系统, 最后对“平台”的运行机制和应用推广进行了分析和研究, 应用实践证明理事会、会员制和公司制相结合的方式是云制造资源服务平台运行和推广应用的有效途径。建立的“煤矿装备云制造资源服务平台”功能完整, 使用方便, 可为煤矿装备设计和应用单位提供资源服务、数据服务、计算服务、软件应用和技术支持, 同时可为其他机械装备建立云制造资源服务平台提供借鉴和参考。

关键词: 云制造; 煤矿装备; 资源服务平台; 制造服务; 合作设计

Research and application on coal mine machinery equipment cloud manufacturing resource service platform

Abstract:

To solve the design and manufacturing resources demand problem of coal mine machinery equipment enterprises, based on the regional industry demand analysis, the necessity and design features were discussed of building “Coal Mine Machinery Equipment Cloud Manufacturing Resource Service Platform”.Based on describing the system structure, key technology and development tool, the design method and function structure of the platform were studied.The platform includes three fundamental functions which are general machinery and equipment technical support system, coal mine machinery equipment technical service support system and coal mine machinery equipment key technical innovation support system.The operation mechanism and application promotion way of the platform were studied.The operation practice proves that the mode of council, membership and corporations combining was effective.The functions of “Coal Mine Machinery Equipment Cloud Manufacturing Resource Service Platform” are complete and easy to use.It may provide resource services, data services, computing services, software applications and technical support for coal mine machinery equipment design and application enterprises, and may provide reference for building other mechanical equipment cloud manufacturing resource service platform.

Keywords: cloud manufacturing; coal mine machinery equipment; resource service platform; manufacturing service; cooperative design

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通讯作者: 王学文

作者简介: 王学文(1979—), 男, 山西长治人, 副教授, 博士

作者Email: wxuew@163.com

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