

Research on the Application of Flexible and Programmable Systems in Electronic Systems

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Abstract : This article explores the application and structural characteristics of flexible and programmable systems in electronic systems, with a focus on analyzing their advantages and architectural differences in dealing with complex environments. By introducing mathematical models and simulation experiments, the performance of dynamic module combination in flexible systems and fixed path selection in programmable systems in resource utilization and performance optimization was demonstrated. This article also discusses the mutual transformation between the two in practical applications and proposes a solution to improve system flexibility and performance through dynamic reconfiguration technology. This study provides theoretical reference for the design and optimization of flexible and programmable systems.

Keywords : flexibility, programmable, electronic systems, system architecture

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