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RFID-based intelligent bookcs shelving system (Conference Paper)

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Abstract

Searching and sorting misplaced **books** is a difficult task often carried out by the library personnel. Quite often, librarians are busy with searching misplaced **books** which are left in wrong locations by library users. It is quite difficult and almost impractical to place back all **books** to their assigned locations daily. To overcome this, Radio Frequ ency Identification (**RFID**) **based Intelligent shelving system** has been proposed to provide an efficient mechanism of **books** management monitoring through wireless communication between the **RFID** reader and the **books**. It is quite essential for the proposed **system** to have a smooth motion for the **RFID** reader during the **shelving** operation; otherwise acquired data will have no value due to inconsistency in reading the tags. Consequently, in this paper, the performance of **RFID** reader motion and tags data management such as retrieving information, matching with database, sorting out the order and displaying the status of **books** locations are discussed. A prototype consisting of monitoring PC with embedded controller, two dc motors with drivers, **RFID** reader and aluminum frame stick on rack have been developed. The performance of the proposed **system** has been investigated and found to be satisfactory. And it has a lot of potential applications, especially in its ability to alleviate the intensive labors and efforts in shel ving library **books**.

Author keywords

Lab view user interface; Motion control; **RFID**; Tags data management

Indexed keywords

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