

## Abstract Details

**Title:** Partial Cooling of Non-A/c Railway's Coaches using Chemical Solution

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**Abstract:** The main objective of this research work is to provide partial cooling to the Non-A/c railway's coaches, like sleeper and passenger coaches, for the short distant journey train through the air-duct made in the roof of the coaches. Partial cooling is the process of reducing the temperature of hot air coming to the coaches up to some extent using chemical solution based on simple heat transfer concept. As we know, there is no any cooling system for Non-A/c coaches in the railway, so it is great difficult to travel in these coaches in summer time. This paper describes a simple arrangement, which work on the simple heat transfer process, of a new component including a plastic container having the chemical solution and a hollow coiled pipe of Aluminium which passé through the solution. This arrangement doesn't have any electrical component and it can be fixed easily within air-ducts.

**Keywords:** Non-A/c coaches of railway, partial cooling, heat transfer, chemical solution, Air-duct.