

Establishing of Accelerated Pavement Testing Facility at CRRI

Central Road Research Institute (CRRI) has procured a 'Heavy Vehicle Simulator', an on-site version of 'Accelerated Pavement Testing Facility'. The South-African built facility has been commissioned within the premises of the institute. Accelerated Pavement Testing involves the controlled application of a prototype wheel loading, at or above the appropriate legal load limit to a prototype or actual, layered, structural pavement system to determine pavement response and performance under a controlled, accelerated accumulation of damage in a compressed time period

Objectives of Creating APT Facility

- Establishment of Centralised National Accelerated Pavement Testing Facility (APTF)
- To generate data similar to Long Term Pavement Performance (LTPP) Studies and to develop pavement deterioration models for flexible and rigid pavements (for typical pavement structures)



Advantages of APTF

- Advance information on pavement performance
- Evaluation of New designs, specifications, mixes and materials
- Studies for anticipated traffic conditions
- Greater control over uniformity and quality of construction because of small size of test sections
- Control over environmental factors such as pavement temperature and subgrade moisture
- Simulated field conditions
- Economical and ready to use technical solutions
- Substantial savings with improvements in pavement design procedures and maintenance practices
- Well targeted pavement research programme
- Knowledge gained from APTF affects decision of road authorities
- Determination of magnitude and timing of asset establishment and preservation costs

Major Priority Areas of Research for India

- Performance Various Pavement Specifications
- Impact heavy vehicles on pavements (axle load, tyre type and pressure)
- Evaluation non-standard materials
- Processes (insitu stabilisation, emulsions, by-products, recycled materials, reflection crack retarders etc.)
- Maintenance efficacy of treatments, intervention strategies
- Low volume roads surface treatments
- Construction quality, effect of mechanisation

Proposed Immediate Study

- Construction of a Test Strip within CRRI
- Specifications conforming to MoRT&H
- Verify the 'Design Life' as envisaged
- Attempt to rationalise IRC design method

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