COURSE DESCRIPTION

The basic phases of a project level road pavement rehabilitation investigation and design project have already been established in South Africa with the publication of the first draft TRH12: “Bituminous pavement rehabilitation design” in 1983. The draft TRH12 identified the following phases in a project level pavement rehabilitation design project:

- Initial Assessment,
- Detailed Assessment,
- Rehabilitation Design, and
- Economic Analysis.

Since 1983, the draft TRH12 has been subjected to several reviews and upgrades, i.e. in 1990, 1997 and 2006. The 2006 document was compiled as a comprehensive document in a format more appropriate to a manual with the title “Flexible pavement rehabilitation Investigations and design”. This document eventually led to the publication of a handbook aimed at tertiary training published through the University of Pretoria with the title “Optimisation of flexible road pavement rehabilitation investigations and design”.

The official 1997 draft TRH12: “Flexible pavement rehabilitation Investigation and design”, contains numerous improvements on the original 1983. and included “Practical and Functional aspects” that should be taken into account by the design engineer. These “non-technical” inputs were recognised as of major impact on any rehabilitation project. Substantial improvements have again been made during the 2006 revision.

Although the basic approach to project level rehabilitation investigations have been in established in South Africa over a number of decades, in practice, many of these concepts are not included in rehabilitation investigations, leading to the adoption of the popular “blanket” approach where old roads are usually partially reconstructed at considerable costs to authorities. South Africa is not in a position to afford such luxuries and available funds need to be optimally utilised through the application of the principles advocated by the draft TRH12 series.

During the two day course the different phases of a project level rehabilitation design are covered in summary. The course content is based on the 2006 draft THR12 revision, covering:

- Introduction to road rehabilitation investigations;
- Non-pavement related aspects, i.e. management, social, environmental, piratical and functional aspects;
- Pavement Condition Assessment:
  - Initial Assessment, and
  - Detailed Assessment;
- Rehabilitation Design, and
- Life-cycle cost comparison of applicable options.

The aim is to familiarise delegates with the procedures associated with the optimisation of road pavement rehabilitation investigations and design. Design methods are categorised and their limitations and advantages identified and discussed in brief. This summary of design methods are presented to assist the design engineer to make an informed decision on the use of an appropriate design method(s).

Finally, the principles of a life-cycle cost comparison of applicable rehabilitation options/strategies (as designed) are discussed. During this phase of the investigation various applicable rehabilitation options are compared based on the Present Worth of Costs of the options over the design period.

The design section of the draft TRH12 series focuses on the theoretical analysis of appropriate and applicable design options. No mention is made of the material design aspects that essentially forms part of the detailed design. This course includes aspects related to the material design to ensure that the design criteria (as theoretically designed) can be met through the cost-effective use of available road building materials. An introduction is given to the importance of mineralogy testing in the consideration of various available stabilising agents (including new developments in Nano-modification of traditionally used materials) in the selection of the most cost-effective use of materials.

COSTS

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<tr>
<th>Category</th>
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<tbody>
<tr>
<td>SARF Sponsor members</td>
<td>R5 700</td>
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<tr>
<td>SARF Members</td>
<td>R6 350</td>
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<tr>
<td>Non Members</td>
<td>R6 950</td>
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The fees include VAT. The fee includes a bound set of notes, and light refreshments during the day.

Exact venue will be confirmed when proof of payment is received by SARF.

Register online at: [http://www.sarf.org.za](http://www.sarf.org.za)

Terms and conditions apply

Closing date: Friday 9th June 2017

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Delegates can claim 2 CPD points
CESA-565-08/2017