Introduction
Bridges constitute significant and critical discrete components of a transportation system and they are among the most expensive investment asset of any country's civil infrastructure. They also have a long service life compared with most commercial products and are rarely replaceable once they are erected. Therefore effective bridge asset management practices are required to obtain the best value from limited resources. This course is part of the suite of courses offered in the postgraduate program in Civil Infrastructure Management and Maintenance in the Department of Civil Engineering at the University of Cape Town. The course will provide participants meaningfully guidance to quantify their bridge infrastructure deficit and prioritize bridge investment. The course will give a broad overview of bridge management systems and maintenance strategies. Attention will be paid to the DER method of bridge inspection. This approach is used by a number of national, provincial and municipal authorities in South Africa.

Topics and Scope
- Background: bridge failures
- Overview of Structures Management Systems
- Bridge asset management from a client perspective
- Structure definitions
- Basic information requirements
- Visual assessment of structures
- Overview of typical defects on structures
- The DER Rating System – TMH 19
- Visual Inspection guide
- Inspection procedure and quality assurance
- Inventory and inspection photos
- Visual assessment forms
- BMS implementation in SA: Case Studies
- Implementing a BMS
- Best Management Practices for existing structures
- Applying bridge asset management
- Preventative maintenance of structures
- Asset valuation: replacement and current asset value

Presenters
Paul Nordengen – CSIR Built Environment
Stephen Humphries - Nyeleti Consulting (Pty) Ltd
Other invited guest speakers

Value for engineers
Engineers who attended the workshop should be able to:
- Perform a conceptual design for various bridge types
- Select appropriate load-bearing and support systems
- Calculate bridge loading based on relevant load models and national Codes
- Perform a preliminary structural analysis of concrete bridges
- Understand issues relating to the construction of concrete bridges and how these affect the design process
Literature and Handouts
Printed and electronic material and handouts will be provided.

Course Information

Participant target groups
- Bridge Engineers & Technologists, Agency and Public Sector Bridge Asset Managers, Bridge Maintenance Managers, Bridge Inspection Consultants.
- Students and Academics

Format
Lectures will be given over 3 days by the course presenters.

Registration fees
Delegates R 7 900
Full-time students R 3 950
Registration covers attendance of all sessions of the 3-day workshop, teas and lunches, and one set of notes

Certificates and CPD Points
A certificate of attendance will be awarded to CPD participants. Participants need to attend 80% of the lectures to qualify for an attendance certificate.
CPD participants can also request a formal university transcript, which will show this course as part of a Professional Development Career.
This course is registered with ECSA for the award of 3 CPD points. The ECSA course code is UCTBMM17

Venue
Emperors Palace Hotel, Kempton Park, Johannesburg

Registration and Cancellation
For further information on the course content please contact Professor Pilate Moyo, University of Cape Town, Dept. of Civil Engineering
Phone: (021) 6502592, Fax: (021) 6897471, Email: pilate.moyo@uct.ac.za
Registration forms are available on the website www.cpd.uct.ac.za/cpd/applications
In order to ensure a place on the course applicants must complete and return a signed registration form to the course administrators: Heidi Tait or Sandra Jemaar: ebe-cpd@uct.ac.za
Confirmation of acceptance will be sent on receipt of a registration form.
Registrations close one week before the start of each course

Cancellations must be received one week before the start of a course, or the full course fee will be charged.