



## CURRICULUM VITAE

- Name : Karen Bredenkamp
- Position : Chief Engineer
- Qualifications : B.Eng (Mech)
- Previous experience :
- 3D Anthropometry, free form CAD modelling and headgear fit evaluation
  - Ergonomics :
    - ◆ Application of 3D anthropometry in equipment evaluation
    - ◆ Application of anthropometry in clothing fit and workspace design and evaluation
    - ◆ Evaluation of dimensional layout, controls and displays in vehicles
  - Evaluation of environmental stressors : noise, whole-body vibration, temperature
  - Biomechanics analysis techniques : skin surface pressure measurement, posture analysis
  - Statistical analysis
  - Project management

### Previous experience:

Management of projects, execution and/or provision of expert inputs as well as applying equipment and software tools in ergonomics research and consultative projects. Typical projects involve biomechanics, traditional and three-dimensional (3D) anthropometry, ergonomics of various equipment, vehicles and workstations, and evaluation of environmental stressors such as noise, whole-body vibration and temperature.

Act as ERGOTECH liaison to national and international conferences as well as international research facilities with the purpose of information exchange and fact finding.

Membership of professional associations:  
ESSA Ergonomics Society of South Africa

**Publications:**

Bredenkamp, K. ESSA (Ergonomics Society of South Africa) Conference, 2006, Accuracy investigation of the tc<sup>2</sup> scanner, the first 3D whole-body scanner employed in South Africa

Mac Duff, L and Bredenkamp, K. Cyberg Ergonomics Session 2005. Pilot study: lower extremity characterization protocol.

Mac Duff, L.\*† , de Ridder, J.H.‡ , Malan, D.D.J. † , Bredenkamp, K. Determining the manual handling capability of a South African worker population in relation to the critical job demands, (submitted for publication in 2005)

Bredenkamp, K. Soldier Technology Conference 2005, Human Centered Evaluation of the Capes

MacDuff, L, van Schalkwyk, C, Bredenkamp, K. SA Soldier magazine, 2004, SANDF has one of the worlds most current anthropometric (body dimensions) databases.

MacDuff, L and Bredenkamp, K. IEA Conference 2003, Three-dimensional anthropometric data in Africa