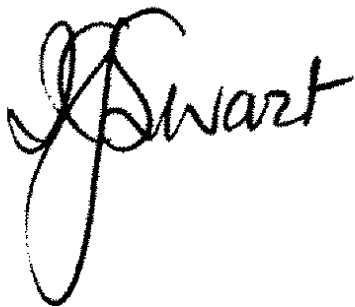


This serves to confirm that I, Isabella Johanna Swart, registered with and accredited as professional translator by the South African Translators' Institute, registration number 1001128, language edited the dissertation (excluding the References) with the following registered title:

**Cancelable biometrics using hand geometry-based steganographic techniques**

by

Louis-Philip Shahim

A handwritten signature in black ink, appearing to read 'J Swart'. The signature is stylized with a large, looped initial 'J' and a cursive 'Swart'.

Dr Isabel J Swart

Date: 13 November 2018

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