



CURRICULUM VITAE

Dr Susan Henrico
Date of Birth: 29 July 1978



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Academic Appointments at Stellenbosch University

Current Positions: Senior Lecturer in the Department of Strategic Studies, Faculty of Military Science, Stellenbosch University.

Academic Qualifications

- **BA(Mil)** with Military Geography, Public and Development Administration and Industrial Psychology at Stellenbosch University, Faculty of Military Science (2000).
- **Post Graduate Certificate in Education** (Cum Laude) at North-West University (Pukke) (2004).
- **BAHons (Geography)** at UNISA (2009).
- **National Certificate in Occupationally-directed Education, Training and Development Practice (ETDP)** at Mentornet (2011).
- **National Diploma in Occupationally-directed Education, Training and Development Practice (ETDP)** at Mentornet (2012).
- **MA in Geography** at University of Pretoria (2017). *Titled: ANALYSING THE PRACTICAL FEASIBILITY OF USING FREE AND OPEN SOURCE SOFTWARE FOR GEOGRAPHICAL INFORMATION SYSTEMS (FOSSGIS) IN MILITARY OPERATIONS*
- **PhD in Geography** at University of Pretoria (2020). *Titled: UNDERSTANDING THE ACCEPTANCE AND USE OF OPEN SOURCE GEOSPATIAL SOFTWARE – THE CASE OF QGIS IN SOUTH AFRICA*

Study and Career Record

- Appointed by UNISA (College of Agricultural and Environmental Sciences, Department of Geography) as an independent contractor from 2009 to 2017 to lecture and presentation of short GIS course modules, marking of assignments and portfolios and assist with the presentation of GIS workshops to undergraduate students.
- Appointed by the SANDF as senior lecturer at under- and post-graduate level in Defence Intelligence Studies, Department of Strategic Studies at the Faculty of Military Science, Stellenbosch University (Oct 2020 – current).

Teaching Experience

- I am currently (April 2018 – present) a Lecturer of Defence Intelligence Studies (Department of Strategic Studies) at the Military Academy, Faculty of Military Sciences, Stellenbosch University.
- Part time lecturer at the Department of Military Geography 2019.
- I was contracted by the University of South Africa (College of Agricultural and Environmental Sciences, Department of Geography) since 2009 to 2017 to assist with the presentation of short GIS course modules, marking of assignments and portfolios and assist with the presentation of GIS workshops to undergraduate students. The following modules were presented:
 - ✓ Explore Geography for Geographical Information Systems (EGIS01J) and
 - ✓ Operate a Vector-based Geographical Information System (EGIS02K).
- I was the section head of Geospatial Training at the Directorate Geospatial Intelligence (SANDF) (2007 - 2018) and as such I developed, presented, and assessed numerous geospatially related SASSETA courses. I also coordinated and presented geospatial courses to other SADC countries.

Research Focus

Primary Research Field: Intelligence Collection, Intelligence Studies, Geospatial Intelligence & GIS.
Secondary Research Field: Military Geography, Geography, Geosciences, FOSSGIS.

Research Collaborations

- Research collaboration with **Prof Jacques Bezuidenhout (Department of Physics, Faculty of Military Science), Prof N. Gomes and Mr V. Kalueyo of the Independent University of Angola** under a bilateral research agreement between South Africa and Angola. The collaboration investigates beach erosion south of Luanda, by radio mapping beach deposits around the Kwanza River Mouth (2020 – current).
- Research collaboration with Prof Serena Coetzee (University of Pretoria) and Dr Antony Cooper (Researcher for the CSIR and extraordinary lecturer University of Pretoria) about the history of GIS in South Africa (June 2022 – current).

Research Outputs

Accredited International Publications

- **Transactions in GIS (2020)**. Acceptance of open source geospatial software: Assessing QGIS in South Africa with the UTAUT2 model. Authors: Henrico, S., Coetzee, S., Cooper, A. and Rautenbach, V. <https://doi.org/10.1111/tgis.12697>
- **Geografia Fisica e Dinamica Quaternaria (2020)**. A comparison between two DEM products to calculate a visibility analysis for military operations using FOSSGIS. Authors: Ivan Henrico, Susan Henrico and Serena Coetzee).
- **Transactions in GIS (2022)**. The role of age, gender, experience, education and professional registration in acceptance of QGIS in South Africa. Authors: Henrico, S., Coetzee, S., Cooper, A.

Accredited National Publications

- **South African Geographical Journal (2020)**. Curriculum alignment at undergraduate level: Military Geography at the South African Military Academy. Authors: Ivan Henrico, Hennie Smit and Susan Henrico. DOI: <https://doi.org/10.1080/03736245.2020.1842238>
- **Scientia Militaria (2020)**. Is open source GIS feasible in military operations? Evaluation by applying a use case. Authors: Henrico, S., Coetzee, S. and Cooper, A. <https://doi.org/10.5787/48-1-1259>
- **Scientia Militaria (2022)**. Putter, D. and Henrico, S., 2022. Social media intelligence: The national security-privacy nexus. Scientia Militaria: South African Journal of Military Studies, 50(1), pp.39-40.

Accredited (non-subsidised) Publications

- **OSGEO Journal (Vol. 16, No. 1, p. 2;2016)**. A.,. Analysing the practical feasibility of FOSSGIS in military operations—A Cholera outbreak use case. Authors: Henrico, S.J., Coetzee, S. and Cooper,

Publications currently under Peer-Review

- African Security Review - Outer Space, The Not so New War Zone: The Contours of Outer Space Armed Conflict and its Impact on South Africa's National Security. Henrico, S.J., Henrico, I., Putter, A.P.
- Transactions in GIS - Qualitative Analysis of QGIS in SA, Henrico, S.J., Coetzee, S, Cooper, A.

- Transactions in GIS – Radiometric Mapping of the Berg river estuary, Henrico,I, Henrico,S, Le Roux,R, Bezuidenhoudt,J.

Papers Presented at International Conferences

- **International Conference on Military Geosciences** – ICMG19 presentation on the “Suitability of the TanDEM-X 90 m DEM compared with the SRTM 30 m DEM on the calculation of a visibility analysis for military operations”, Ivan Henrico, Susan Henrico and Serena Coetzee, 23 – 28 June 2019, 23 – 28 June 2019, University of Padova, Italy.
- **International FOSS4G Conference in Bonn, Germany (2016)**: Analysing the practical feasibility of FOSSGIS in military operations–A Cholera outbreak use case. In Free and Open Source Software for Geospatial (FOSS4G) Conference Proceedings (Vol. 16, No. 1, p. 2). Henrico, S.J., Coetzee, S. and Cooper, A., 2016.
- **2021 International Virtual Conference on “Counter Terrorism, Technology and Development in Africa”**. Outer Space, The Not so New War Zone: The Contours of Outer Space Armed Conflict and its Impact on South Africa's National Security. Henrico, S.J., Henrico, I. Co-hosted by the University of Óbuda, Hungary and the Stellenbosch University, South Africa.
- **2022 International Conference on Military Geosciences, Charleston, USA**. Application of GIS for Military Terrain Analysis: the case of ‘Black Week’ (10-17 December 1899), Second Anglo-Boer War. Ivan Henrico, Susan Henrico, and Evert Kleynhans.
- **2022 International Conference on "Counter-Terrorism, Technology and Development in Africa"**. Social media intelligence: The national security–privacy nexus. Putter, A.P and Henrico, S.J. Co-hosted by the University of Óbuda, Hungary and the Stellenbosch University, South Africa.

Papers Presented at National Conferences

- National presentation on “Curriculum alignment at undergraduate level: Military Geography at the South African Military Academy”. Authors: Ivan Henrico, Hennie Smit and Susan Henrico. At the Scholarship of Teaching and Learning (SoTL) Virtual Conference, 4 November 2020, University of Stellenbosch.
- National presentation on “Evaluating and defining the military geography curriculum at the South African Military Academy”. Authors: Ivan Henrico, Hennie Smit and Susan Henrico. At the Scholarship of Teaching and Learning (SoTL) Conference 12th Annual Conference, 29 October 2019, University of Stellenbosch.
- **GISC Mini Conference 2017**: Presented post-graduate masters research at the CGIS mini conference, 02 November 2017 (Proceedings registered at the SA Geomatics Council - UNI473).
- **SoTL Conference 2021**: At the Scholarship of Teaching and Learning (SoTL) Virtual Conference, 10 November 2021, University of Stellenbosch. “Interactive Content Assessment in Counter-intelligence theory: Assessing Cognitive learning in reading, comprehension and writing”. Authors: A.P Putter, S.J. Henrico, M. Reutener, H. Mkhize, M.G. Ramuhala.

Post-Graduate Supervision

PhD Supervision

- One candidate (in progress).

Masters Supervision

- One candidate (in progress).

External Examiner

- University of Pretoria (UP) Honours GIS 705.

Professional Associations (Membership) and Congresses

- The South African Geomatics Council (SAGC): Registered as a GISc Professional (GPrGISc1475).
- The Geo-Information Society of South Africa (GISSA): Registered as a member.
- Registered as an Educator at SACE (Nr:12478697)

Managerial and Administrative Capacity/Leadership and Management Capacities

- Section Head Geospatial Training from 2007 – 2018 at the Directorate Geospatial Intelligence.
- UN Co-chair of Workgroup 2 (capacity building), 2021- currently.
- 2IC of the Awards Committee.
- Member of the Research Committee.
- Member of the Roster Committee.

Awards Received

- Awarded a prize at the Military Academy on 12 December 2000 as the Best Military Geography 3rd year student.
- Obtained a Post Graduate Certificate in Education at North West University (Potchefstroom) Cum Laude – 14 September 2004.
- Obtained a Master of Arts in Geography at University of Pretoria Cum Laude (86%) - 9 May 2017.
- Received Academic Honorary Colours at University of Pretoria for my Masters of Arts in Geography (Cum Laude) – 3 May 2017.
- Awarded a Merit Award from Chief Director Collection (Defence Intelligence) – 4 December 2008.
- Awarded a Commendation from the Director Geospatial Intelligence – 2 December 2008.
- Awarded a Commendation from the Ministry of the Defence of the Republic of Namibia for training delivered In GIS and the production of military maps – 24 April 2014.
- Obtained a Defence Intelligence Merit Award for my Master's Degree in Geography from the Chief Defence Intelligence on 8 December 2017.
- Received Academic Honorary Colours at University of Pretoria for my PhD in Geography – 30 September 2020.
- Award for the Best Poster Presentation at the Scholarship of Teaching and Learning (SoTL) Virtual Conference, November 2021.
- Was the coach of postgraduate students taking part in a Southern Africa Cyber Strategy Competition in 2021 – was awarded the second place overall and won the award for best teamwork.
- Received a Military Academy "Commandant Commendation Certificate", In appreciation of exemplary dedication and commendable service as the Coach for the Cyber Soldiers team during the Geneva Cyber 9/12 Strategy Challenge over the period 21 – 22 April 2022.

NRF Rating and/or rating of status of Academic

- NRF: No/NA

Self-Development Programmes

- Member of the ECAD programme.
- Completed PREDAC course at SU (2021).

Bursaries Received

- University of Pretoria (UP) post-graduate studies: 2016 – 2019.
- SANDF funding for studies at state expense.

Professional Military Training

I completed various intelligence and promotional courses over a 23-year career in the SANDF (Defence Intelligence) and also completed the Officers Formative (1997) and the Junior Command and Staff Course (200) in the South African National Defence Force (SANDF). I obtained the following military training:

- Officers' Formative Training (1997).
- Counter Intelligence Part 1 & 2 (1997)
- Collection Part 1 & 2 (1997).
- Processing Part 1 & 2 (1997).
- Surveillance (1997).
- Introduction to Image Interpretation (1997).
- C-Level Intelligence Course (2002).
- Integrated Sub-unit Commanders (2007)
- Junior Command and Staff Course – Theory and Practical (2012-2013).

References

Prof S. Coetzee – (Masters and PhD Supervisor / Research Mentor)
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Cdr (Prof) H.A.P. Smit
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Brigadier General Pieter Thirion (Retired)
Professional Acquaintance at the SANDF
082 451 5590

Brig Gen C. Terblanche – (CDIS, Defence Intelligence)
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082 907 0511