



Prof Hanekom is lid van die bioingenieurswese-navorsingsgroep in die Departement Elektriese, Elektroniese en Rekenaaringenieurswese van die Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie (Skool vir Ingenieurswese). Haar navorsing is toegespits op gehoorpersepsie en in die besonder kogleêre-inplantings vir mense wat doof is. Die groep se navorsing is daarop gemik om 'n beter begrip te verkry van die verhouding tussen die ontwerp van kogleêre-inplantings en die klankpersepsie van die dowe persoon. Ondanks die kliniese sukses van kogleêre-inplantings, word hierdie verhouding nie goed begryp nie. Navorsing wat deur die groep gedoen is, sluit die ontwikkeling van rekenaarmodelle van kogleêre-inplantings en psigoakoestiese eksperimente in.

Prof Hanekom beskou haar rol in die bou van 'n internasionaal mededingende en erkende navorsingsgroep as 'n hoogtepunt in haar loopbaan. Die groep het reeds referate in al die belangrikste vaktydskrifte in die betrokke dissipline gepubliseer. Die navorsingsgroep is slegs een van 'n handjie vol navorsingsgroepe in die wêreld wat erkenning geniet vir hul modelleringsbenadering tot gehoornavorsing en in die besonder vir gedetailleerde volume-geleidingsmodelle van die elektries-gestimuleerde binneoor.

Prof Hanekom se werk is befonds deur die Thuthuka-program Vroue in Navorsing, en deur die Fokusarea-program: *Unlocking the future: Advancing and strengthening strategic knowledge* – albei van die NNS, vir haar navorsing oor die koppelvlak tussen elektrodes en senuvesels in kogleêre-inplantings. Haar deskundigheid op hierdie gebied word internasionaal erken.

Sy het 'n aantal referate in leidende internasionale vaktydskrifte op haar vakgebied gepubliseer, onder andere in *Hearing Research, Biological Cybernetics, Medical and Biological Engineering and Computing* en die *Journal of Neuroscience Methods*.

Prof Hanekom is 'n geregistreerde Professionele Ingenieur, 'n senior lid van die Suid-Afrikaanse Instituut van Elektriese Ingenieurs (SAIEE) en 'n volle lid van die (internasionale) Institute of Electrical and Electronic Engineers (IEEE) en die Suid-Afrikaanse Kogleêre-inplantingsgroep (SACIG). Sy het 'n C2-gradering van die NNS.

---

Prof Hanekom is a member of the bioengineering research group in the Department of Electrical, Electronic and Computer Engineering in the Faculty of Engineering, Built Environment and Information Technology (School of Engineering). Her research focuses on auditory perception and, specifically, cochlear implants for the deaf. The group does research that aims to improve the understanding of the relationship between the design of the cochlear implant and the perceived sound. Despite the success of cochlear implants from a clinical viewpoint, this relationship is not well understood. Research undertaken by the group includes computer modelling of cochlear implants and psycho-acoustic experimental work.

Prof Hanekom regards her participation in building an internationally competitive and recognised research group as a career highlight. The group has published papers in all the major journals in its field. The bioengineering research group is one of only a handful of research groups worldwide that is recognised for its modelling approach to auditory research, and specifically for detailed volume conduction models of the electrically stimulated inner-ear.

Prof Hanekom received funding from the Thuthuka, Women in Research Programme and from the Focus Area Program: *Unlocking the future: Advancing and strengthening strategic knowledge*, both from the NRF, for her research on the electrode-nerve fibre interface in cochlear implants. Her expertise in this field is internationally acknowledged.

She has published a number of papers in major international journals in her subject area, including *Hearing Research, Biological Cybernetics, Medical and Biological Engineering and Computing*, and the *Journal of Neuroscience Methods*.

Prof Hanekom is a registered Professional Engineer, a senior member of the South African Institute of Electrical Engineers (SAIEE), and a full member of the Institute of Electrical and Electronic Engineers (IEEE) and the South African Cochlear Implant Group (SACIG). She has a C2-rating from the NRF.

---

Prof Hanekom ke leloko la sehlopha sa dinyakišišo tša boentšenerere bja bophelo Kgorong ya Boentšenerere bja Mohlagase, Didirišwa tša Mohlagase le Khomphutha ka Lefapheng la Boentšenerere, Kago ya Tikologo, le Theknolotši ya Tshedimošo (Sekolong sa Boentšenerere). Dinyakišišo tša gagwe di nepile temogong ya malebana le go kwa, kudukudu go lokelwa ga dithušagokwa difoeng. Sehlopha se se dira dinyakišišo tšeo maikemisetšo a tšona e lego go kaonafatša kwešišo ya kamano gare ga tlhamo ya dithušagokwa le modumo woo o kwewago. Ntle ga katlego ya dithušagokwa go ya ka pono ya tlhahlobo le phekolo ya malwetši, kamano ye ga e kwešišwi gabotse. Dinyakišišo tšeo di dirilego ke sehlopha se di akaretša kaonafatšo ya dithušagokwa ka khomphutha le mošomo wa diteko wa kamano ya tša monagano le go kwa.

Prof Hanekom o bona go tšea karolo ga gagwe ka go ageng sehlopha sa dinyakišišo sa go phadišana maemong a boditšhabatšhaba bjalo ka ntlhagolo ya mošomo wa gagwe. Sehlopha se se phatlaladitše dipampiri ka ditšenaleng tše kgolo tša ka lefapheng la sona. Sehlopha sa boentšenerere bja bophelo ke se sengwe sa dihlopha tša go tlala seatla sa dihlopha tša dinyakišišo go phatlalala le lefase tšeo di tsebegago ka tsela ya kaonafatšo ka dinyakišišo tša go kwa, kudukudu ka dimmotlolo tša taolo ya bolumo tšeo di tseneletšego tša tsebe ya ka garegare yeo e matlafaditšwego ka mohlagase.

Prof Hanekom o amogetše thušo ya mašelang go tšwa Lenaneong la *Thuthuka Women in Research* (ya NRF) ka ga lekala la nepo ya gagwe la *Unlocking the future: Advancing and strengthening strategic knowledge*, bakeng sa dinyakišišo tša gagwe go kopano ya megalatšhika ka mohlagase. Tsebo ya gagwe ka mo lekaleng le e tsebega maemong a boditšhabatšhaba. O phatlaladitše dipampiri tše ntšinyana ka ditšenaleng tše kgolo tša boditšhabatšhaba ka lekaleng la gagwe la thuto go akaretšwa le *Hearing Research, Biological Cybernetics, Medical and Biological Engineering and Computing*, le *Journal of Neuroscience Methods*.

Prof Hanekom ke Moentšenerere yo a ingwadišitšego, molelokomogolo wa *South African Institute of Electrical Engineers* (SAIEE) le leloko la go tlala la *Institute of Electric and Electronic Engineers* (IEEE), le *South African Cochlear Implant Group* (SACIG). O na le maemo a C2 go tšwa go NRF.