

CALL FOR EXPRESSION OF INTEREST FOR HIGHER INSTITUTES OF LEARNING TO BE PART OF SENTECH'S CENTRES OF EXCELLENCE FOR RESEARCH AND INNOVATION COLLABORATION

1 EXPECTED RESPONDENTS

This call is directed to

- 1) Universities that have been part of SENTECH's research initiative for several years and wish to extend the collaboration beyond 2021 – that is, the **University of Witwatersrand (WITS), University of Cape Town (UCT) and University of Pretoria (UP)**.
- 2) To any new institute meeting requirements and wish to be part of **SENTECH's Centres of Excellence**

The call specifically excludes the University of Johannesburg (UJ) and University of Limpopo (UL), who have just been admitted to the program.

2 BACKGROUND

SENTECH is in the business of telecommunications, broadcasting, networking infrastructure, and solutions. As part of Sentech's digital future we have embarked on developing research, technical, and commercial capacity for 5G and beyond, cloud computing, virtualized infrastructure, data-driven operating model, machine learning and artificial intelligence. Part of the strategy is to ride the wave of the fourth industrial revolution (4IR) by collaborating with academia, suppliers, customers, and other interested stakeholders. In this regard, SENTECH is in the process of establishing a bespoke structure that will coordinate activities between interested parties and SENTECH. Currently, SENTECH is already funding several institutes of higher learning, which shall be referred to as SENTECH Centres of Excellence.

SENTECH also wants to address other business and societal agendas such as skills development, outreach programs, transformation of historically disadvantaged, Africa agenda, BRICS initiatives, new market avenues, entering Africa wide and global markets.

3 CALL FOR EXPRESSION OF INTEREST

SENTECH is inviting:

- 1) Currently funded institutions of higher learning, **excluding** the University of Johannesburg (UJ) and the University of Limpopo (UL), to express interest to continue the collaboration with SENTECH and be funded as part of Centres of Excellence; and
- 2) Other institutions, other than institutions of higher learning, to express their interest to collaborate and be funded by SENTECH as part of Centres of Excellence.

The funding, expected to range between R1 million to R1.5 million, will support a good mix of basic or fundamental research and applied research. SENTECH reserves the right to increase or reduce the amount of funding and to negotiate for the extension of scope depending on changing needs of SENTECH or proposal submitted or expertise.

Successful respondents will enter into a contract with SENTECH for a *period two or three years* with the option to extend for further *three years*. Unless otherwise agreed, 30% of the funding is expected to fund undergraduate and outreach programs and 70% research and postgraduate programs.

4 AREAS OF INTEREST

Areas of focus for this engagement include, but no limited to:

- 5G and beyond and the future of networks
- Cloud computing and infrastructure virtualization
- Internet of things (IoT)
- Data analytics (DA) and artificial intelligence (AI)
- Interactive media services (IMS)
- Industrial and manufacturing autonomous systems
- Automobile
- 4IR use cases for health, education, agriculture, environment, etc.
- Smart places-and-environments, and use cases for health, educational, agricultural, environmental, etc.
- Bandwidth and Bandwidth Optimization
- Radio frequency (RF) spectrum compatibility and feasibility studies

Further, after interacting with the University of Cape Town (UCT), and the University of Johannesburg (UJ) research programs as well as other currently funded institutions, SENTECH is resorting to aligning all research and innovation activities to *UN Sustainable Development Goals (SDG)*. Therefore, respondents must show that their agenda include academic outputs as well as addressing SENTECH business needs and national, continental, and global socio-economic aspirations of the country.

5 PROPOSAL

Proposals by currently funded institutions should include the following:

- 1) Report on previous five years of participation or years of participation if less than five years. The report should include
 - a. Researchers involved, their qualifications and experience, gender, and race
 - b. Undergraduate students supported, and their status (completed, still studying, dropped), gender and race
 - c. Postgraduate students supported, their area of research, status, gender, and race
 - d. Any other research outputs and achievements
 - e. Financial report, including excess funds that can be used in future activities
- 2) Future research programs or areas of research aligned to SENTECH and to UN Sustainable Development Goals
- 3) Clear key performance indicators and yearly targets
- 4) Transformation plan showing an intent for appropriate mix of race and gender, previously disadvantaged and previously advantaged, local flavor, and international flavor and outreach programs
- 5) Plans to ensure SENTECH visibility and share in the outcomes and achievements
- 6) Three-to-five-year high-level budget

Proposals by other institutions should include the following:

- 1) Previous experience of similar programs and research capacity in the past five years. The experience and capacity should be supported by the following information:
 - a. Available researchers, their qualifications and experience, gender, and race
 - b. Postgraduate students, their area of research, status, gender, and race
 - c. Any other research outputs and achievements
- 2) Intended research programs or areas of research aligned to SENTECH and to UN Sustainable Development Goals
- 3) Clear key performance indicators and yearly targets, covering at least skills development, academic outputs, transformation, community outreach, internationalization, intellectual property and productization.
- 4) Transformation plan showing an intent for appropriate mix of race and gender, previously disadvantaged and previously advantaged, local flavor, and international flavor and outreach programs
- 5) Plans to ensure SENTECH visibility and share in the outcomes and achievements
- 6) Three-to-five-year high-level budget

6 EVALUATION CRITERIA

Areas of evaluation	Criteria (Evaluators to use their discretion for score below possible score due to partial achievement)	Possible score
Diversified researchers in terms of research areas, experience, local/international and demographics	More than three research areas demonstrated	5
	Years range from 5 to 20 years with a mean or median of 5 to 10 years (3 for range of years and 2 for mean or median)	5
	Researchers and students complement, in terms of gender and race, represents South Africa demographics	5
	At least 10% international researchers (2); at least 50% researchers are South Africans (3)	5
Planned KPIs	Clear alignment to SENTECH's business needs	5
	Alignment UN SDGs or 4IR solutions; socio-economic aspirations	5
	KPIs smart and cover almost all the drivers and intents of the EOI	10
Quality of the proposal and implementation plan	Proposal clear and provide all stipulated aspects as well as other valuable additions	5
	Implementation plan and budget clear, realistic, and achievable	5

7 SUBMISSION

Interested parties should submit the expression of interest to the Head of Research and Innovation in this email address: Innovation@sentech.co.za. Queries may be sent to the same address.

Submission deadline: 23 October 2021 at 17.00hrs; all submissions will be acknowledged.

An extension of about 5 working days can only be considered if two or more institutes request for it with detailed reasons. Request for extension must be received by 19 October 2021. No request for extension will be accepted after this date.

8 QUESTION AND ANSWER SESSION

A question-and-answer session will be held on **13 October 2021 at 14.00hrs online using Microsoft Teams**. Interested parties must request for login details using the given email address Innovation@sentech.co.za or call Willem Klopper at 072 159 1412 (8AM – 5 PM) or klopperw@sentech.co.za or Sandiswe Jingiswa at jingisa@sentech.co.za.