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23 October 2024

UCT lecture explores biomedical engineering challenges and opportunities to empower Africa's health technology needs

24 October 2024 | 17:30 SAST | New Learning Centre Lecture Theatre, Anatomy Building, Health Sciences Campus

The development of healthcare technologies specifically suited for low-resource environments in Africa is among the challenges and opportunities facing biomedical engineering professionals.

Director of the University of Cape Town's (UCT) [Biomedical Engineering Research Centre](#), Professor Sudesh Sivasaru's inaugural lecture will particularly unpack this matter. The lecture, titled "Engineering tomorrow's medical devices for Africa's unique needs", takes place at the New Learning Centre Lecture Theatre, Anatomy Building, Health Sciences campus on Thursday, 24 October 2024 at 17:30 SAST.

Sivasaru, who holds the DSI/NRF South African Research Chair in Biomedical Engineering & Innovation, will explore the pioneering frontiers of biomedical engineering tailored to Africa's distinct healthcare landscape.

The lecture will feature Sivasaru's innovative Frugal Biodesign™ methodology, which focuses on designing accessible, affordable and contextually appropriate medical devices. His methodology has gained recognition for revolutionising medical technology development in resource-constrained settings.

Drawing on his extensive body of work, including a substantial portfolio of patent applications and numerous peer-reviewed publications, Professor Sivasaru will demonstrate the journey from conceptualisation to the real-world implementation of these technologies.

Sivasaru will share insights into the successful commercialisation of biomedical innovations and four startup companies, including open-source medical technologies currently deployed in 16 countries. The lecture will also underscore the vital role of biomedical engineering in pandemic preparedness, highlighting Sivasaru's significant contributions to the South African National Ventilator Project during the COVID-19 pandemic and the development of ventilation technologies that hold promise for future public health emergencies.

He will discuss emerging trends in healthcare technology across the African continent and reflect on the potential for young innovators to contribute to this dynamic and evolving field. In addition, the lecture will emphasise the transformative impact of biomedical engineering in improving healthcare delivery across Africa, with the potential to save millions of lives.

Sivarasu is a professor of biomedical engineering at UCT's [Department of Human Biology](#). He has established award-winning labs under UCT MedTech, producing ground-breaking medical technologies. He has supervised over 85 students in their post-graduate academic journey. Sivarasu has an extensive patent portfolio with over 67 patent applications across various countries, and his innovation has led to the launch of four start-up companies from UCT's MedTech laboratories and several open-source innovations used in over 16 countries.

He leads the efforts on medical devices for future pandemics within the recently formed National Institute for Pandemic Preparedness and Prevention (NIP3). Sivarasu is an accomplished author with over 125 peer-reviewed publications and has received numerous awards, including the UCT Deputy Vice-Chancellor's Award for Innovation, NSTF TW Khambule Award and 22 other awards in four different continents. He is an elected member of the Global Young Academy (GYA) and South African Young Academy of Science (SAYAS), to which he served on the Exco and as a Co-Chair. Sivarasu edited the textbook titled Medical Device Innovation for Africa.

This lecture promises to merge engineering innovation with Africa's pressing healthcare needs, offering a forward-looking vision for a technologically empowered and healthier continent.

Date: Thursday, 24 October 2024

Time: 17:30 SAST

Venue: New Learning Centre Lecture Theatre, Anatomy Building, Health Sciences Campus

- [RSVP](#) to attend the lecture in-person or online.



Professor Sudesh Sivarasu

Photo: Supplied

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Issued by: UCT Communication and Marketing Department

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