Lumkani - low cost fire detection system

Lumkani ('to be aware') is a low cost fire detecting and an early warning system to reduce the damage and destruction caused by the spread of fires in urban informal settlements. To sense fire, the Lumkani detector measures the rate at which temperature increases, rather than smoke levels within a shack (house). The reason for this is that many cooking, lighting and heating methods used by people living in informal settlements produce smoke, which would generate false alarms with standard devices.

All devices are connected in a transmission network. If a signal is not disarmed within 30 seconds, neighboring detectors are also activated and relevant authorities alerted, enabling action to be taken before a fire becomes unmanageable.

During December 2014 two real-life pilot runs, funded by Technology Innovation Agency's University Seed Fund, have shown the effectiveness of the system. This has resulted in dramatic increase in community interest.

Market

Lumkani offers an affordable and easily implementable solution to significantly decrease risk and impact of fires in sprawling informal settlements.

Business Opportunity

Lumkani is seeking funding and partnerships to pursue large-scale roll-out, initially in South Africa, and eventually internationally, through a to-be-formed spin-off company.

Intellectual Property Status

Software code is copyright protected and patent applications are in progress.

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Research Contracts and Intellectual Property Services (RCIPS) acts as the liaison between UCT's research community and the private sector with regards to intellectual property, commercialisation and business development activities. RCIPS has helped to transfer numerous technologies from the university laboratories to industry both locally and internationally.

Lumkani awards

- Launch Lab prize sponsored by Deloitte and Alchemy

- Best start-up in the GIST Competition, Morocco, sponsored by the US Department of State, organised by the American Association for the Advancement of Science

- Best student entrepreneur, Western Cape Premier's Entrepreneurship awards

- Comfortable Home category in the Better Living Challenge, WC Provincial Government and Cape Craft and Design Institute (CCDI)

- David Gluckman nominated for a Shuttleworth Foundation 'Flash Grant'

- Global Social Venture competition, People's choice award and top 6 finalist

- South African Winner at SeedStars World Finalist, Switzerland