

AS AFRICA BURNS... CAN WE ENGINEER A SAFER FUTURE?

*presented by
Prof Richard Walls*

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What do the Charlotte Maxeke Hospital, Jagger Library at UCT, 10 000 people's informal homes in Hout Bay, billions of rands worth of homes in Knysna and the Kendall Power Station have in common? They all experienced major fires and/or burnt down. Fires are affecting our homes, businesses, veld areas and informal settlements. The number of fires and the cost of fires is increasing every year in South Africa – whilst in the some developed countries the trend is going the other way. This presentation seeks to look at the physics and safety engineering aspects of fire through asking interesting questions such as: Will my car catch fire if I leave a bottle of alcohol hand sanitiser in it on a very hot day? How can a wildland (veld) fire jump a fire break kilometres wide? Are Ecobrick homes safe? Do fire retardant paints actually make shacks safer? How many billions of Rands must go up in smoke before we start engineering a better future?

PLEASE NOTE: Access to lecture through registration only!

Follow the link below to register by 22 October 2021.

https://uct-za.zoom.us/meeting/register/tjUtdu6sqzpkGNwFj4HHVNVukmO-sSO_Nacl



Prof Richard Walls (PhD, MSc, GDE, BScEng, BTh, PrEng, FSAICE) is the head of the Fire Engineering Research Unit at Stellenbosch University (FireSUN). He worked as a professional structural engineer designing industrial, petrochemical and commercial buildings before joining Stellenbosch University as a lecturer and researcher. His areas of research include structural fire design, informal settlement fire safety, timber in fire (CLT), full-scale fire testing, modelling, structural steel and burning things down Myth Buster style (has destroyed more than 70 full-scale homes). He works closely with local fire services developing solutions for informal settlement fire problems, and was involved in an analysis of the 1000 homes that burnt down in the 2017 Knysna Fire disaster. In 2019 the FireSUN team launched masters and PhD degree programs in fire safety engineering. In 2020 he was awarded the NSTF-South32 national prize for the Emerging Researcher of the year in South Africa, and recently was awarded the IStructE Excellence in Structural Engineering Education award. He is on the research advisory board for the NFPA and a member of the SABS working group for fire engineering codes.