A PHILOSOPHY OF ENGINEERING PRACTICE FOR THE 21ST CENTURY:
TOWARDS CREATING SUSTAINING FUTURES

BY
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Abstract:

This research has developed as a functional re-conceptualisation of engineering practice. In this practice these professionals create ‘what can be’, consistent with collective goals. Further in creating ‘what can be’ engineering is envisaged as creating an escape from our labyrinthine predicament of the 21st Century - our complex, dynamic environmental and social crisis. In this it recognises the living open world in which we live: the relevant uncertainty, the complex plurality, the need to engage all human and non-human actants that emerges from this reality and that the appropriate method for engineering is active adaptive planning using foresight to create desirable and feasible futures for the whole.

The thesis and thus this presentation works through the philosophical, ontological, epistemological and methodological aspects required to create sustaining futures. It envisages engineering practitioners making heterogeneous connections, becoming broader, more transdisciplinary and dissolving boundaries. Sustaining becomes embedded in engineering outcomes, processes and evolution. In this way, engineering moves towards congruence between goals and practice, rhetoric and reality.