



Fostering Societal Relevance and Engagement within a College of Engineering and the Built Environment

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Engineering and the Built Environment at DUT

- Vision of EBE@DUT

To be known for excellence in producing relevant professionals who use engineering, technology and design for **societal development** in South Africa

- The City of Durban, South Africa

- Largest city on the east coast of Africa with 3,5 million people.
- Second largest sea port in the southern hemisphere and the busiest in Africa. The port itself is a massive flows of people, goods, technology and ideas.
- Second largest manufacturing hub in South Africa.
- Fluid and vibrant contested city spaces – diverse ethnicity
- Unique amalgamation of colonial, Indian and African influences that have created distinct architectural, cultural and social formations.
- Durban brings together the old and the new; the formal and the informal; the modern and the traditional; as well as the East and the West.

Urban Futures Centre @ DUT (UFC@DUT) established 2014

- UFC@DUT is embedded in the College of EBE. Financially cross-subsidised within the College and raise their own research funding.
- Minimal core group of scholars employed full time.
- Cities are viewed as spaces of flow- flows of information, people, resources, waste and capital. Cities also require foundational/fundamental order.
- Faculty are free to join a network or hub or form new ones, e.g. in areas of water, energy, structural design.
- Socio-technical systems becomes the core unit for intervention and production of knowledge.
- Creativity – imagining with different sets of lenses leads to richer engagement with society.

Projects are centered around six program themes in the UFC@DUT

1. **Urban safety and risk management** (This would include risk management and securitisation of physical safety, health, food, energy and water)
2. **Urban mobility and flows** (This includes the flows of goods, services, information, people, water and energy, transportation and food)
3. **Urban creativity, aesthetics and cultural dynamism** (This refers broadly to urban spaces as co-created spaces of creativity, cultural dynamism and social connection)

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4. **Prosumption, consumption and production** (These are three fundamental activities that take place within cities and impact directly on social relations, structure and environmental sustainability)
5. **The governance of transition and the transition of governance** (As cities shift and flows occur, new forms of governance are required. At the same time, governance arrangements need to be established to facilitate flows and transitions).
6. **Digital cities** (Cities are not simply 3D entities. Technology and digital innovations have fundamentally reshaped the ways in which cities are governed and the ways in which people interact.

UFC @DUT pushing traditional engineering education boundaries: fostering societal relevance and engagement

- Promotes a creative synergy between Faculty and a wide array of scientists and specialists, particularly from the social and human sciences.
- Research in socio-technical systems operates at the highest international standards. Network of international scholars flowing in and out of the Centre.
- UFC@DUT has a cross-disciplinary networked approach. Fostering networks – mobility, capacity, knowledge –transdisciplinary research.
- Tailoring your partnerships –different knowledges in the network and keep your space. Individual expertise becomes one of the knowledges in the network.
- Network approach allows for a range of knowledge bearers and knowledge brokers.

A case-study: The city without walls
project

mitigating security risk with
environmental design

Thank you for listening

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Head of the UFC@DUT