FACULTY OF
ENGINEERING AND
THE BUILT ENVIRONMENT

EBE Vision 2050

VISION STATEMENT

- EBE is a caring and collaborative faculty. We focus on excellence, innovation and sustainability.
- We are creative, connected, inclusive, and future-fit.
- Our students and staff are experts and leaders.
- We have customised spaces, resources and support for our vision.

IMAGINE.
CREATE.
SUSTAIN.

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A special thank you to our EBE Future Dreamers Group for conceptualising EBE Vision 2050.

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- Sampath Amarasinghe Danapathi Ara – Electrical Engineering
- Sherry Bremner – Chemical Engineering
- Sherlyn Gabriel – Mechanical Engineering
- Thobani Gambu – Chemical Engineering
- Obakeng Jona - Chemical Engineering
- Malibongwe Manono - Chemical Engineering
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- Siphiwe Mphuthi – Architecture, Planning and Geomatics
- Amanda Mtya – Construction, Economics and Management
- Liz Musvoto – Construction, Economics and Management
- Obiora Nnene – Civil Engineering
- Justin Pead – Electrical Engineering
- Moreblessings Shoko – Architecture, Planning and Geomatics

Thank you to Dr. Craig Wing, who facilitated the group and played a key role in helping formulate the thoughts towards Vision 2050.

Vision 2050 was conceptualised using the following methods and tools to facilitate its development:

- Eisenhower Matrix (developed by Dwight D. Eisenhower) for prioritization
- Empathy Map (developed by Dave Gray) for understanding stakeholder needs
- Business Model Canvas (developed by Alexander Osterwalder and Yves Pigneur) for strategic planning
- 3 Horizons Model (developed by Bill Sharpe) for long-term visioning

9 GOALS FOR THE VISION

1. We are caring and collaborative. We focus on excellence, innovation and sustainability.
2. Our teaching and learning is skills focussed and fundamentals driven.
3. Our curricula are inclusive and responsive to local and global challenges.
4. We offer customised learning and AI-driven solutions.
5. We are experts and leaders. We integrate research and teaching in strategic and relevant areas.
6. We have spaces and resources for creative thinking.
7. We have digital equality and seamless connectivity.
8. We have streamlined, efficient administration systems.
9. We are connected.

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GOAL 1

We are caring and collaborative. We focus on excellence, innovation and sustainability.

- We take care of all our staff and encourage their development and growth
- We consciously mentor new staff
- We encourage and nurture inter-department collaboration and collegiality
- Excellence, innovation and sustainability are at the centre of our vision.

GOAL 2

Our teaching and learning is skills focussed and fundamentals driven.

- Our course offerings are based on fundamental principles and application of skills
- They are at the cutting edge of technology in delivery and content
- Our project-based learning supports student development.

GOAL 3

Our curricula are inclusive and responsive to local and global challenges.

- We offer an inclusive, decolonised curriculum that is responsive to student needs
- Our curricula integrate local and global perspectives
- We offer specialised programmes for local and global challenges and opportunities.

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GOAL 4

We offer customised learning and AI-driven solutions.

- Our customised learning approach is adaptable to individual needs and focussed on student success
- We use AI-driven teaching and digital tools to personalise education and support lecturers
- Our coursework is aligned with students' evolving needs for lifelong learning.

GOAL 5

We are experts and leaders. We integrate research and teaching in strategic and relevant areas.

- We inspire lifelong learning
- Our students and staff lead with integrity, self-awareness and resilience
- We link theory and practice with relevant content
- We integrate research into our teaching. We involve students in research projects
- We encourage multi and cross disciplinary research towards a common goal.

GOAL 6

We have spaces and resources for creative thinking.

- Our Peer Learning Spaces encourage creativity and collaboration through the curriculum and across departmental boundaries
- Our infrastructure supports New Teaching Approaches, Cross Departmental Projects, and Extra Curricular Spaces
- We use AI-driven solutions and digital tools to enhance teaching and operations.

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GOAL 7

We have digital equality and seamless connectivity.

- Staff and students have comprehensive digital access, seamless connectivity and the ability to fully participate in digital society
- The faculty has minimum laptop specs for students and they have access to the necessary software for the duration of the degree
- We have appropriate technological infrastructure and make use of digital training tools.

GOAL 8

We have streamlined, efficient administration systems.

- Our administration systems improve workflow and enhance efficiency
- Our support systems and digital platforms (SAP, PeopleSoft, Amathuba, PeopleSoft, Business Objects, DAAS analytics) support us in achieving our goals
- We incorporate evolving views on people and machines into our work
- We implement automation and AI to upskill the faculty.

GOAL 9

We are connected.

- We are globally and locally connected in both teaching and research
- We have meaningful international STEM partnerships for student exchanges and joint research
- We foster cross-cultural teaching and research opportunities.