UNAM FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY - PHASE 2 IN ONGEWDIWA
FOR THE UNIVERSITY OF NAMIBIA

Photo: Jens Malte Neuhaus

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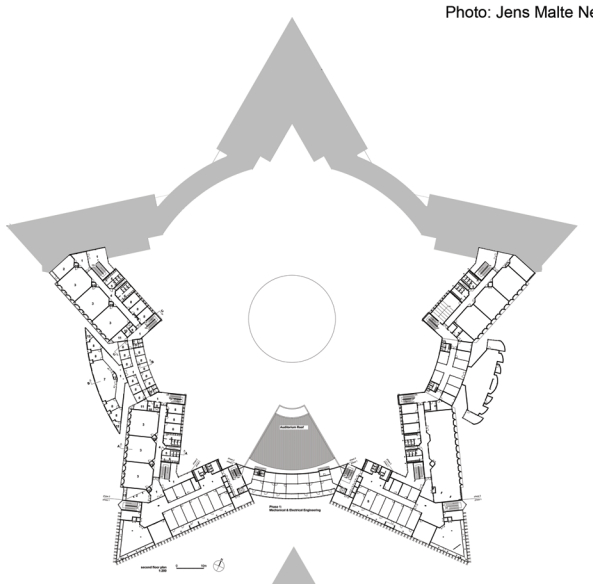
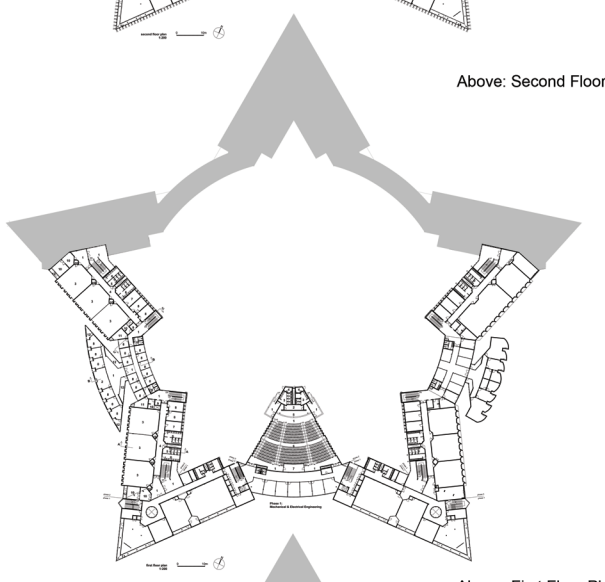
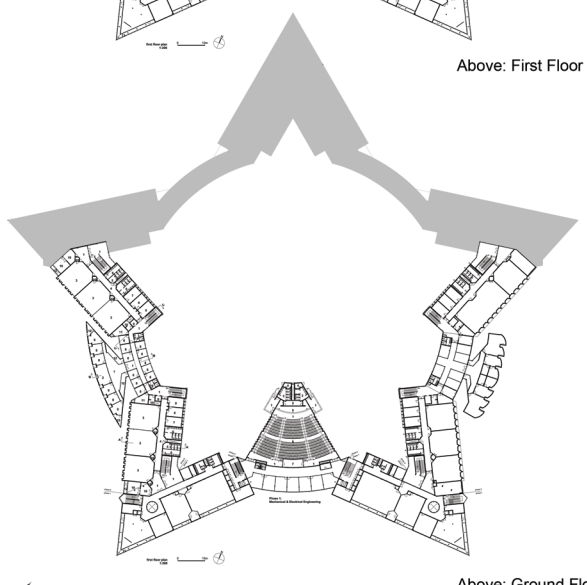


Above: Second Floor Plan



Above: First Floor Plan



Above: Ground Floor Plan

Photo: Nardus Erasmus (MeDesigning)

The vision for the UNAM José Eduardo dos Santos Campus, is to build a state of the art Engineering and Information Technology Faculty, based on the latest technology and educational practices for the advancement of the Namibian people, to be assisted by the world's academia who are passionate about education and to advance the technological development of the entire SADC region. At the same time the structure aims at becoming a Namibian landmark 'The Star of Namibia' in the North.

This faculty aims to redress the imbalances of the past, to build bridges for those disadvantaged and to give all Namibians access to a technical tertiary education. In addition, the faculty aims at becoming self-supporting through training, research and offering consultancy services to the public and private sectors.

Initially designed by Katrin Vaatz, the UNAM Faculty of Engineering and Information Technology layout is based on a geometric fusion of a 5-pointed star and a circle, with each section between 'spikes' allowing for the incorporation of at least two Engineering faculties as well as an administration block. Each of these sections constitutes a building phase, with additional, smaller buildings adjacent to the faculty building for special purposes, such as mini-sub buildings or an X-Ray and Radiography Laboratory.

The design of the UNAM Faculty of Engineering (FOE) José Eduardo dos Santos Campus consists of five phases of which the first was completed in 2009 and the second in 2014. Each completed phase of the faculty has been funded by a different international benefactor. The Third Phase is currently under construction. The first group of Engineering students graduated from the faculty in 2012. Since then, several students have graduated from UNAM Ongwediva in a wide range of engineering disciplines and the faculty continues to grow from strength to strength.

The faculty is planned in the following phases:

Phase 1: Faculty of Mechanical and Electrical Engineering (completed)

Phase 2: Faculty of Mining & Metallurgical and Computer Engineering (completed)

Phase 3: Faculty of Civil and Environmental Engineering (under construction)

Phase 4: Faculty of Electronics & Telecommunication Engineering

Phase 5: Faculty of Industrial & Chemical Engineering

The first Phase, which was completed in 2009, included the faculties of Mechanical and Electrical Engineering, the main administration block housing the Dean's office, a hostel block, water treatment plant and some staff housing facilities for visiting lecturers.

The second phase saw the completion of an information resource centre, administration offices, a 430-seater auditorium and an X-ray and Radiography Laboratory for geological testing in addition to the faculty building. Paraplegic and disabled students are well considered as all buildings are easily accessible by wheel chairs. The audio-visual systems installed in the lecture rooms are all of high-end adaptable technology. The contract value for phase 2 was N$136,000,000.00, which was partly funded by the Indian High Commission and partly by the Namibian Government.

The star-shaped structure was devised for security as well as accessibility reasons. The final structure will create an amphitheatre and garden space in the middle of the star-shape that can only be accessed through controlled entrances in each section. Each section of the star-shape allows for an entrance point to some admin offices as well as two faculty departments. All entrances are accessible via an external ring road, that encircles the entire faculty and allows each engineering department to be accessed directly

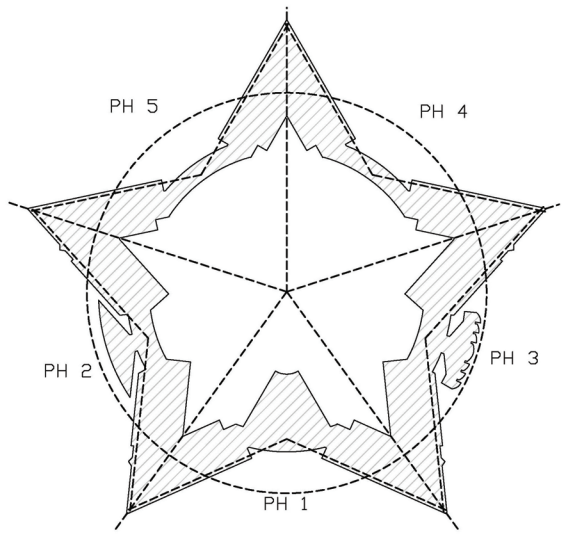
Each entrance creates a controlled access to the faculty from different sides, with an internal circulation through the entire faculty building. This allows students to walk freely through all faculty departments. The internal circulation by way of a central passage divides the buildings in such a way that lecture rooms and workshops are situated towards the outer walls of the star shape, while amenities, services and offices are situated mainly towards the internal / central area of the star shape. The central admin blocks between each spike house mainly offices and boardroom facilities as well as tea kitchens and cleaner's rooms. These are ideally situated to service all faculty departments as they are centralised for each section of the star shape.

The focus for the project is always on functionality, while still maintaining the beauty of Architectural design and at the same time sourcing as much labour and products as possible locally. Sustainable environmental considerations were included in the addition of a water treatment and reclamation plant on site as well as deriving as much energy from solar power as possible. The roof overhangs on the building were specifically designed to house solar panels, thereby creating a holistic design solution. The east and west facades were also designed to create natural shading for passive temperature control.

Attention to detail was Katrin's, and is still our highest priority. Katrin also loved to play with colour in her designs. Therefore, we used vibrant colours of red, yellow and blue in the external painting of the phase 2 building. These colours also correspond with the colours of the original UNAM Logo.

Katrin passed away before the building works for phase 2 were completed. Since then Pieter Mostert Argitek adopted Katrin's ongoing contracts. We at Pieter Mostert Argitek will always ensure that we complete Katrin's remaining projects as she had envisioned them and to the same high standard and attention to detail which she stood for.

UNAM's Faculty of Engineering in Ongwediva will be a landmark consisting of university buildings, workshops, houses, staff houses, sports grounds and an amphitheatre in the centre of the star shape. For many years to come, students will reach for the stars and complete their Engineering degrees in a first class building at UNAM JEDS Campus in Ongwediva.



Above: Phase Allocation

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