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DIABETIC Footwear

DIABETIC Footwear

Diabetic footwear sometimes referred to as extra depth, therapeutic shoes. The selection of the suitable and comfortable shoe is essential, especially for a person with diabetes. The shoe helps people with diabetes in reducing the risk of skin breakdown with pre-existing foot disease.





PREVENTION

The primary goal of therapeutic footwear is to prevent complications, which can include strain, ulcers, calluses, or even amputations for patients with diabetes and poor circulation. Specifically, diabetes can cause nerve damage, or neuropathy, that lessens the foot's sensitivity to pain.

the SHOE

The diabetic footwear was designed using the bio-mimetic approach. It refers to a process to be inspired by nature characteristics and mimicking into new innovative products. The shoe soles are thick and wide. Thicker soles cushion the patient feet from wear and tear, and that little bit of extra width helps their feet to avoid those hot spots.



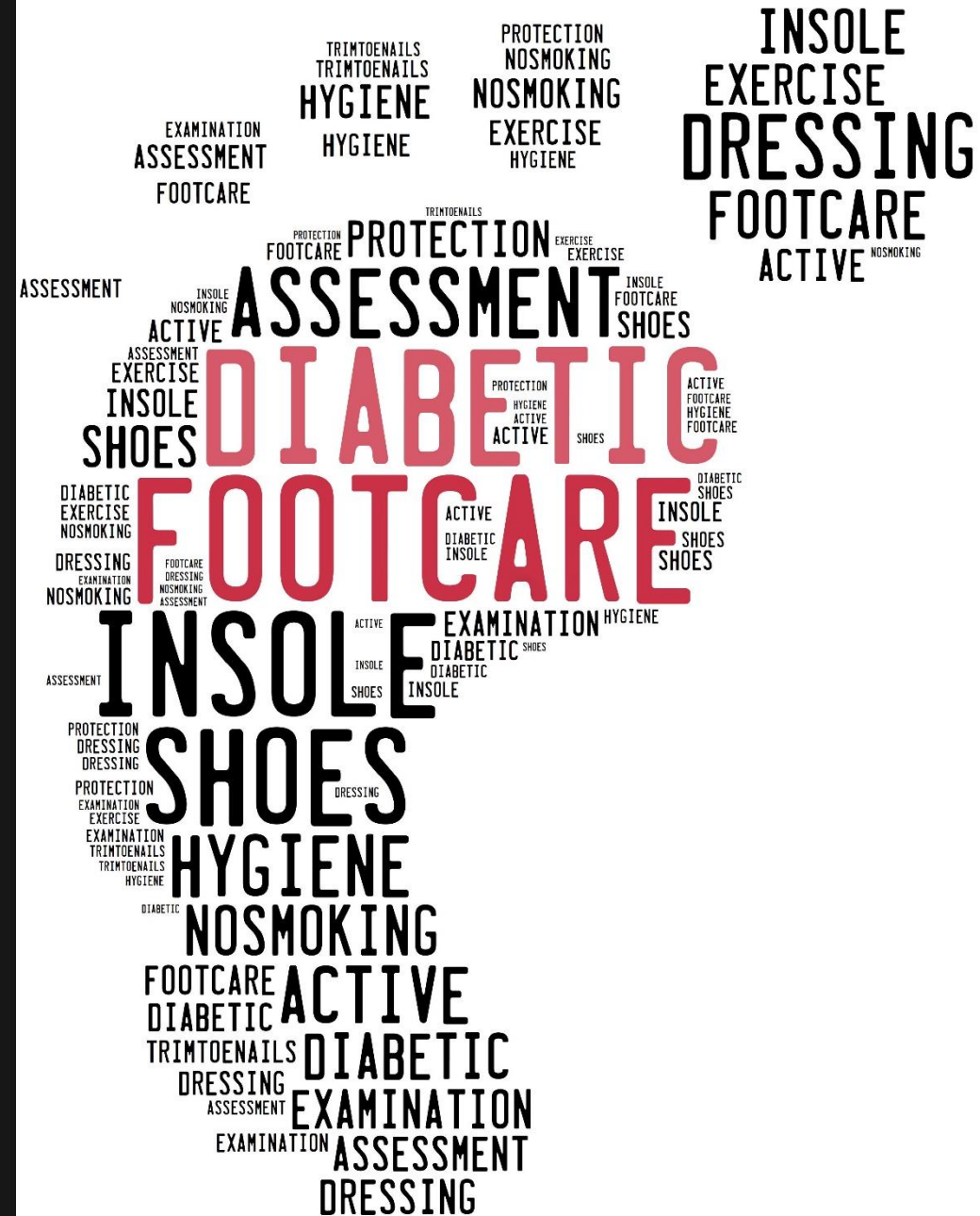
the DESIGN

The insole is designed using most layered silicon. Rubber and plastic are not the suitable for the diabetic patient as this material do not absorb sweat and may cause the spreading of unwanted bacteria. Silicon is chosen as it has a soft texture and it will change its form based on the foot shape. Furthermore, it will help the patient maintain the stable positioning of their flat feet.

Silicon is used in the pharmaceutical and surgical device. The biocompatibility polymer silicon is proposed because of chemical stability and the compatibility for various physical forms. Besides that, silicon is a breathable material that is suitable with the patient's foot.



The diabetic footwear is purposely designed for the outdoor, and indoor use as the patient cannot walk with barefoot even they are indoor. The patient needs shoes that support your arches, ankles, and heels. The shoe is also adjustable as it used the Velcro system. In addition, the in-sock layer is designed with the sole that makes it comfortable to wear.



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Siti Maisarah Kamarul
Bahrain, Dr. Nadiah
Mustaffah and Dr. Haszlin
Shaharudin posing with
the Gold Award won at
ITEX2017

”



PRODUCTION

“This shoe took a few months to produced as it was made manually. Currently, most of the demands came from visitor of ITEX. Unfortunately, we cannot sell them as the shoe itself is still in the developing process.” claimed Dr. Haszlin.



RESEARCH story

This research is conducted with the collaboration of the Faculty of Medicine staff, Dr. Nadia Mohd Mustafah, the Clinical Specialist of Rehabilitation Medicine.

“The real challenge is to get the measurement of the patient’s feet, but with Dr. Nadia’s and Siti Sarah’s assistance and expertise, we manage to overcome it. It was such a good experience for us to collaborate with Dr. Nadia from the Faculty of Medicine as we exchanged the knowledge from each other’s field,” said Dr. Haszlin and Dr. Azroll.



Dr. Haszlin Shaharudin and Dr. Mohamad Azroll Ahmad posing with one their product exhibited at Gesturz Gallery, UiTM Shah Alam



Galeri Seni Tuanku Nur Zahirah GESTURZ

Galeri Seni Tuanku Nur Zahirah (GESTURZ) is located within the Menara SAAS. Officially opened by Her Majesty The Raja Permaisuri Agong, Tuanku Nur Zahirah on 24th May 2007, with a new positioning as a university art gallery. Managed by the Faculty of Art & Design, both galleries have same role and function, however with a different focus. The FSSR Art Gallery is positioned as a teaching and learning gallery which also housed a repository unit for the permanent collection. While, GESTURZ is positioned as a university art gallery which open for public, audience friendly, and commercial driven.

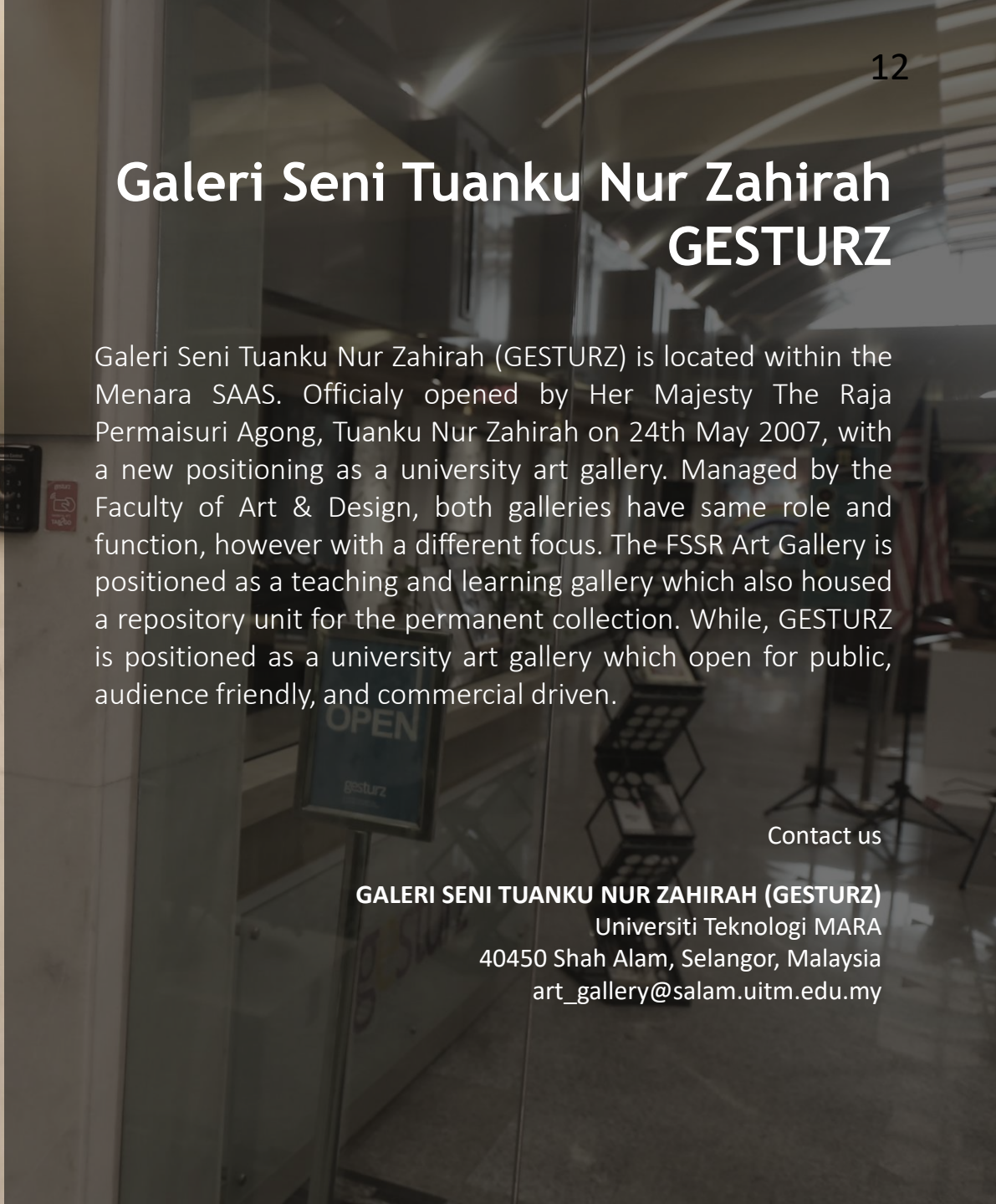
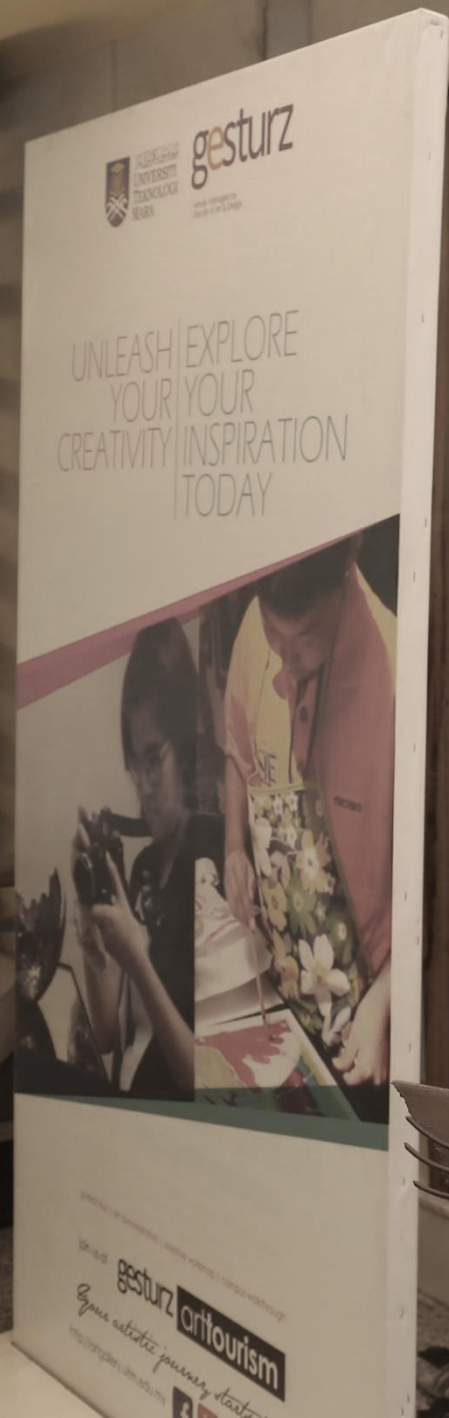
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