

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF TEXTILE TECHNOLOGY

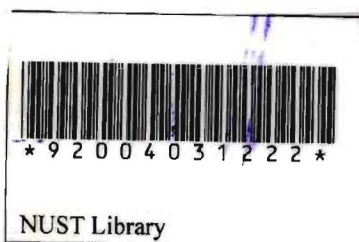
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TITLE: INVESTIGATING THE EFFECTS OF RESIDUAL STARCH – SIZE ON  
DYEING COTTON FABRICS BY CONTINUOUS METHODS

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR:  
BACHELOR OF TEXTILE TECHNOLOGY HONOURS



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## ABSTRACT

This project focused on the consequences of dyeing cotton fabrics that have varying levels of residual starch size. Residual starch-size was often overlooked at during pretreatment of greige cotton fabrics. Starch was taken as a null hypothesis during the investigation on shade variation at one of the local textile companies. The idea to isolate starch was derived from the fact that starch and cellulose have similar chemical structures. It was believed that starch react with dyes in a similar way as cotton.

Three sets of fabrics were desized differentially using oxidizing agents. The first set of fabrics was dyed with a light shade, the second set was dyed with a medium shade and the last with a dark shade.

The dyed fabrics within each set were assessed for variation using a spectrophotometer. The results of the three sets were compared graphically. A recommendation on the efficient use of the grey-scale was given at the end of the project.