

RATIONALE AND VALIDITY OF FIELD SELECTION PROCEDURE IN TECHNICAL AND ENGINEERING EDUCATION

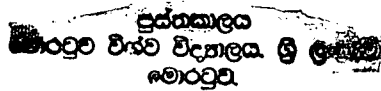
by

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A dissertation submitted in a partial fulfillment of the requirements for the degree of

M. Phil.



Department of Mathematics

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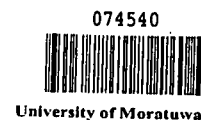
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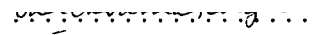
DECLARATION

I hereby certify that the work done in this Dissertation is a result of my own effort where, reference is made to the work of authors and this is acknowledged in the text. This Dissertation has not been submitted for another degree.

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To the best of my knowledge the above particulars are correct.

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Abbreviations

B.Sc.	:	Bachelor of Science
B.Tech	:	Bachelor of Technology
C.C.T	:	Ceylon College of Technology
Dip.Tech	:	Diploma in Technology
G.C.E.	:	General Certificate in Education
-“A/L”	:	Advanced level
-“O/L”	:	Ordinary level
H.N.D.E.	:	Higher National Diploma in Engineering
I.E.S.L	:	Institute of Engineers Sri Lanka.
I.I.E.S.L	:	Institute of Incorporate Engineers Sri Lanka
I.P.T.	:	Institute of Practical Technology
N.A.I.T.A.	:	National Apprentice & Industrial Training Authority
N.D.E.S.	:	National Diploma in Engineering Science
N.C..T.	:	National Certificate in Technology
N.D.T.	:	National Diploma in Technology
O.U.S.L.	:	Open University of Sri Lanka
S.L.I.A.T.E.	:	Sri Lanka Institute of Advanced Technical Education
U.G.C.	:	University Grants Commission

Topic : **Rationale and Validity of Field Selection Procedure in Technical and Engineering Education.**

Objectives:

1. Identify the courses leading to degree and diploma programmes in Engineering Education.
2. Collect the input and output data of these programmes for a number of years.
3. Analyse the data with a view to identify the efficiency of these programmes.
4. Formulate method and procedures of selection to improve efficiency and reduce wastage.

Scope:

This study is based on the experience gained in developing a selection and streaming procedure for National diploma in Technology students at University of Moratuwa, over a period of twelve years. It is expected to cover the following programmes :

- Engineering degree at University of Peradeniya.
- Part I, Part II / Charter at Institute of Engineers.
- Engineering degree at University of Moratuwa.
- National Diploma in Technology at University of Moratuwa.
- National Diploma in Engineering Science from NAITA.
- Higher National Diploma in Engineering from Ministry of Higher Education.
- Bachelor of Technology at Open University of Sri Lanka.
- Diploma in Technology at Open University of Sri Lanka.

Abstract

- > *Selection of fields in graduate and technician courses in engineering is a problem, specially found in Sri Lanka*
- > *There is probably no research work reported on issues and strategies to overcome this problem*
- > *Issues of field selection in Sri Lanka for engineering courses of degree and technician levels are discussed in this thesis*
- > *Statistical data available and collected for the work are analysed and evaluated*

- > *Recommendations are made for modalities of field selection for category mentioned*

The entry criteria, methods used and performance will be studied by relating the input and output data. Analysis will be done taking into account the restrictions imposed by delays in results, district quota etc. and their effect on the individuals and society as a whole.

Personality factors of the students such as home background, financial problems and temperament have not been considered. In addition, the standard of each institution, the quality of teaching, training and methods of evaluation were not taken into account. Even though these factors bear an effect on the outcome, they are not easily measurable in quantitative terms and as such they have been left out.