

HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING COURSE

DIPLOMA PROJECT

ACTIVE FILTER: AN OVERVIEW

E/1333

DESIGN BY
ANDREAS TSIOUTIS

JUNE 2003

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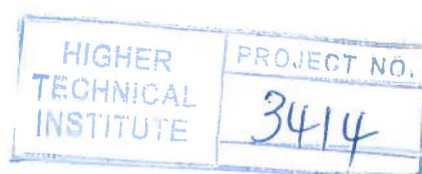
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Project report
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SUMMARY

In recent years there has been considerable interest in the development and applications of Active Filters because of the increasing concern over power quality, at both distribution and consumer levels, and the need to control reactive power and voltage stability at transmission levels. However, there are many different filter configurations that can be employed and there is no standard method for rating the active filters.

The existing approaches are classified and assessed to provide a framework of references for both researchers in this field and for generators, suppliers and consumers of electrical power who are, or may be, concerned about the problems associated with power quality and are considering installing Active Filters for their particular sets of problems. Also this project describes the active filter operation characteristics and develops standard ratings that can be used for filtering different types of nonlinear loads.

At the end of this work we have a construction of a High Voltage Active Filter. Of course a lot of work must be done until to say that the constructed Active Filter is ready for application. Some parts of the project can be modified or improved and also other may be given.

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