

**DUAL PURPOSE PARAMETRIC EQUALIZER:
A TECHNICAL FEASIBILITY STUDY**

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**Marikina Institute of Science and Technology
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✓ DUAL PURPOSE PARAMETRIC EQUALIZER:
A TECHNICAL FEASIBILITY STUDY

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ABSTRACT

This study dealt with the design and construction of a device called a Dual Purpose Parametric Equalizer which would meet the needs in teaching the audio system and help the students in the study of sounds.

This dual purpose parametric equalizer can be used to tailor the sound of audio system. It can also combine several audio input smoothly so that it could be used in public address systems where four microphones can be simultaneously used.

The finding of this study shows that the gadget could perform similar function as the commercially made professional graphic equalizer. This can be designed and constructed by electronics students in the school because all the tools and equipment needed in the construction of this gadget are available in the shop. The cost of a finished dual purpose parametric equalizer is only one thousand one hundred fifty-five pesos and ninety-nine centavos (P1,555.99). It takes five and one-half days to finish one unit of this gadget.

This paper included the complete circuit diagram, procedure in the construction and assembling of the components, operating procedure, maintenance, and safety precautions to be observed in the operation. Consequently, the maintenance is cheaper because of the availability of materials within the locality of Cebu City.

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CHAPTER I

INTRODUCTION

This chapter includes origin and justification, objectives, and scope and delimitation of the study.

Origin and Justification of the Study

As the state of audio technology has advanced, sophisticated processors have become available for use in sound systems. Among the most popular category of signal processors is the equalizer and the subcategory that has generated the most excitement among serious audio enthusiasts and sound professionals is the parametric equalizer.

New technology is introduced day by day from all over the world. Hence the teacher of this field must be aware of them in order to match the school output to the requirements of the employing sector and the skills needed for entry into industries. But there is a constraint existing in almost all the trade schools-shortage of equipment. Hence, the researcher was challenged to design and construct a dual purpose parametric equalizer that would help the students in the study of sound of audio-system. Today electronic music is an exciting and rapidly growing field. A technician who works with this system must have sufficient knowledge and understanding of the principles