

LABORATORIO 1: AMPLIFICADORES OPERACIONALES

Luis Rodriguez P.¹ y Duvan²

Resumen— En el presente documento se presentara los resultados obtenidos a partir de la practica No. 1, relacionada con las características principales de los amplificadores operacionales, también analizaremos los resultados y con base a estos presentaremos algunas conclusiones que serán útiles para todo aquel que tenga algún interés en emplear un dispositivo electrónico como lo es el caso de los amplificadores operacionales.

I. INTRODUCCIÓN

Los amplificadores operacionales han representado un pilar importante para electrónica analógica, desde su aparición a finales de la década del cuarenta, han recibido innumerables usos en todos los campos de la industria y la investigación, por medio de estos las señales que son recibidas desde un sistema pueden ser atenuadas, amplificadas, filtradas, operadas matemáticamente, etc.

Un esquema simplificado de un amplificador operacional es como el mostrado en la figura 1, donde se pueden observar cinco terminales del mismo, los dos que se encuentran a la izquierda (V_+ y V_-)

Un amplificador operacional puede presentar diversas configuraciones de conexión para cumplir una función específica, a continuación explicaremos las principales características de las configuraciones de amplificadores operacionales que utilizaremos en el desarrollo de la practica:

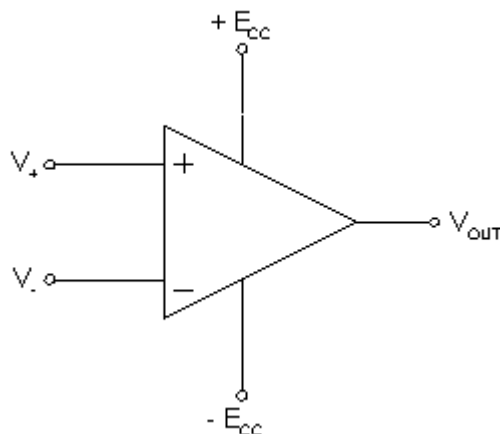


Fig. 1. Esquema de un amplificador operacional.

¹L. Rodriguez es estudiante de Ingeniería mecatrónica, Universidad Nacional de Colombia, correo:lufrodroguezpo@unal.edu.co

²D. xxxxxx es estudiante de Ingeniería mecatrónica, Universidad Nacional de Colombia, correo:xxxxx@unal.edu.co

I-A.

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- Use either SI (MKS) or CGS as primary units. (SI units are encouraged.) English units may be used as secondary units (in parentheses). An exception would be the use of English units as identifiers in trade, such as 3.5-inch disk drive.
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leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantity that you use in an equation.

- Do not mix complete spellings and abbreviations of units: Wb/m^2 or $\text{Webers per square meter}$, not Webers/m^2 . Spell out units when they appear in text: a few henries , not a few H .
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$$\alpha + \beta = \chi \quad (1)$$

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- The word data is plural, not singular.
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Positioning Figures and Tables: Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation Fig. 1 , even at the beginning of a sentence.

Figure Labels: Use 8 point Times New Roman for Figure labels. Use words rather than symbols or abbreviations when writing Figure axis labels to avoid confusing the reader. As an example, write the quantity Magnetization , or Magnetization , M , not just OM . If including units in

TABLE I
AN EXAMPLE OF A TABLE

One	Two
Three	Four

the label, present them within parentheses. Do not label axes only with units. In the example, write "Magnetization (A/m)" or "Magnetization A[m(1)]", not just "A/m". Do not label axes with a ratio of quantities and units. For example, write "Temperature (K)", not "Temperature/K".

V. CONCLUSIONS

A conclusion section is not required. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

APPENDIX

Appendixes should appear before the acknowledgment.

ACKNOWLEDGMENT

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References are important to the reader; therefore, each citation must be complete and correct. If at all possible, references should be commonly available publications.

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