

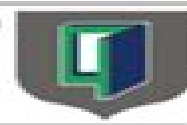
## Step\_Up\_Chopper -- Overview



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### STEP-UP CHOPPER (DC-DC CONVERTER)

#### Objective:

After performing this lab exercise, learner will be able to:

- Understand the working of DC-DC converter.
- Understand and design single-phase Step Up Chopper.
- Analyze and interpret results.
- Learn the role of Power Electronics in utility related applications, e.g. UPS, SMPS etc.
- Work with digital oscilloscope to debug circuit and analyze signals.

#### Equipment:

To carry out this experiment, you will need:

- Single Phase DC-DC converter Kit
- SCR firing circuit kit, 1-phase, 230V, 5A
- Patch chords
- Load
- Digital Oscilloscope (TBS1000B-EDU from Tektronix)

#### Circuit Diagram:



#### Theory:

- A chopper is a high speed ON/OFF switch. It connects source to load and disconnect the load from the source at very fast speed. Hence a chopped output voltage is obtained from a constant DC supply.
- If in a chopper average output voltage  $V_o$  is greater than the input voltage  $V_s$ , then this type of chopper is called as step up

# Lab Manual For Step Up Dc Chopper

**Didier Musso**



## Lab Manual For Step Up Dc Chopper:

**ELECTRONICS LAB MANUAL (VOLUME 2)** NAVAS, K. A., 2018-10-01 This book is evolved from the experience of the author who taught all lab courses in his three decades of teaching in various universities in India The objective of this lab manual is to provide information to undergraduate students to practice experiments in electronics laboratories This book covers 118 experiments for linear analog integrated circuits lab communication engineering lab power electronics lab microwave lab and optical communication lab The experiments described in this book enable the students to learn Various analog integrated circuits and their functions Analog and digital communication techniques Power electronics circuits and their functions Microwave equipment and components Optical communication devices This book is intended for the B Tech students of Electronics and Communication Engineering Electrical and Electronics Engineering Biomedical Electronics Instrumentation and Control Computer Science and Applied Electronics It is designed not only for engineering students but can also be used by BSc MSc Physics and Diploma students **KEY FEATURES** Contains aim components and equipment required theory circuit diagram pin outs of active devices design tables graphs alternate circuits and troubleshooting techniques for each experiment Includes viva voce and examination questions with their answers Provides exposure on various devices **TARGET AUDIENCE** B Tech Electronics and Communication Engineering Electrical and Electronics Engineering Biomedical Electronics Instrumentation and Control Computer Science and Applied Electronics BSc MSc Physics Diploma Engineering IEEE Proceedings of the Southeastcon ,1990 *Energy Research Abstracts* ,1979

*Popular Science* ,2002-12 Popular Science gives our readers the information and tools to improve their technology and their world The core belief that Popular Science and our readers share The future is going to be better and science and technology are the driving forces that will help make it better *QST.* ,1925 **Industrial Laboratories** ,1966 *Optical Spectra* ,1981 *Electronic Design* ,1965 **Servomechanisms: Bulletin of Automatic and Manual Control Abstracts** ,1966 **Control Engineering** ,1989 Instrumentation and automatic control systems Hewlett-Packard Journal ,1965 Process Control and Automation ,1962 **Instruments, Industrial, Scientific** ,1949 Vols for 1938 44 1946 include an issue called the Instruments index published sometimes as pt 2 of a regular number sometimes as an extra number *Scientific American* ,1883 **International Conference on Power Electronics and Variable-Speed Drives, 1-4 May 1984** Institution of Electrical Engineers. Power Division,1984 **The Prairie Farmer** ,1955 **Commerce Business Daily** ,2001-05 **Science Abstracts** ,1965 *Popular Electronics* ,1978 **Wireless World** ,1968

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web jul 21 2021 both animals can produce vocalizations to communicate but since whales communicate mostly underwater you might not be as familiar with their sounds as compared to those distinct clicks or whistles more commonly heard from dolphins dolphins also have the ability to echolocate where baleen whales do not food for thought

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