

VERSATILE POWER SUPPLY

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INTRODUCTION

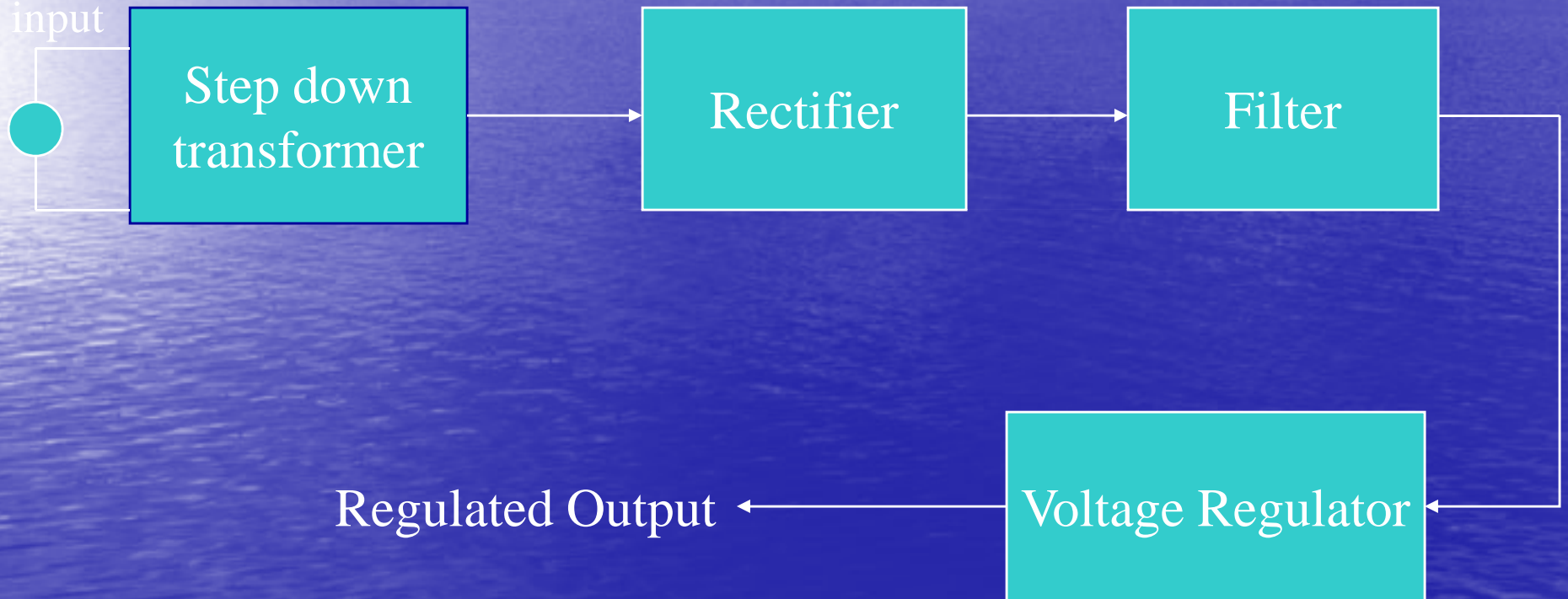
- 'Versatile Power Supply' is a power supply which combines the features of both constant voltage supply and constant current supply.
- Our voltage supply provides the fixed voltages 2.5V, 3V, 5V, 6V, 9V, 12V and $\pm 15V$ at a current limit of 1A.
- The current source can provide a current up to 1A.

BLOCK DIAGRAMS

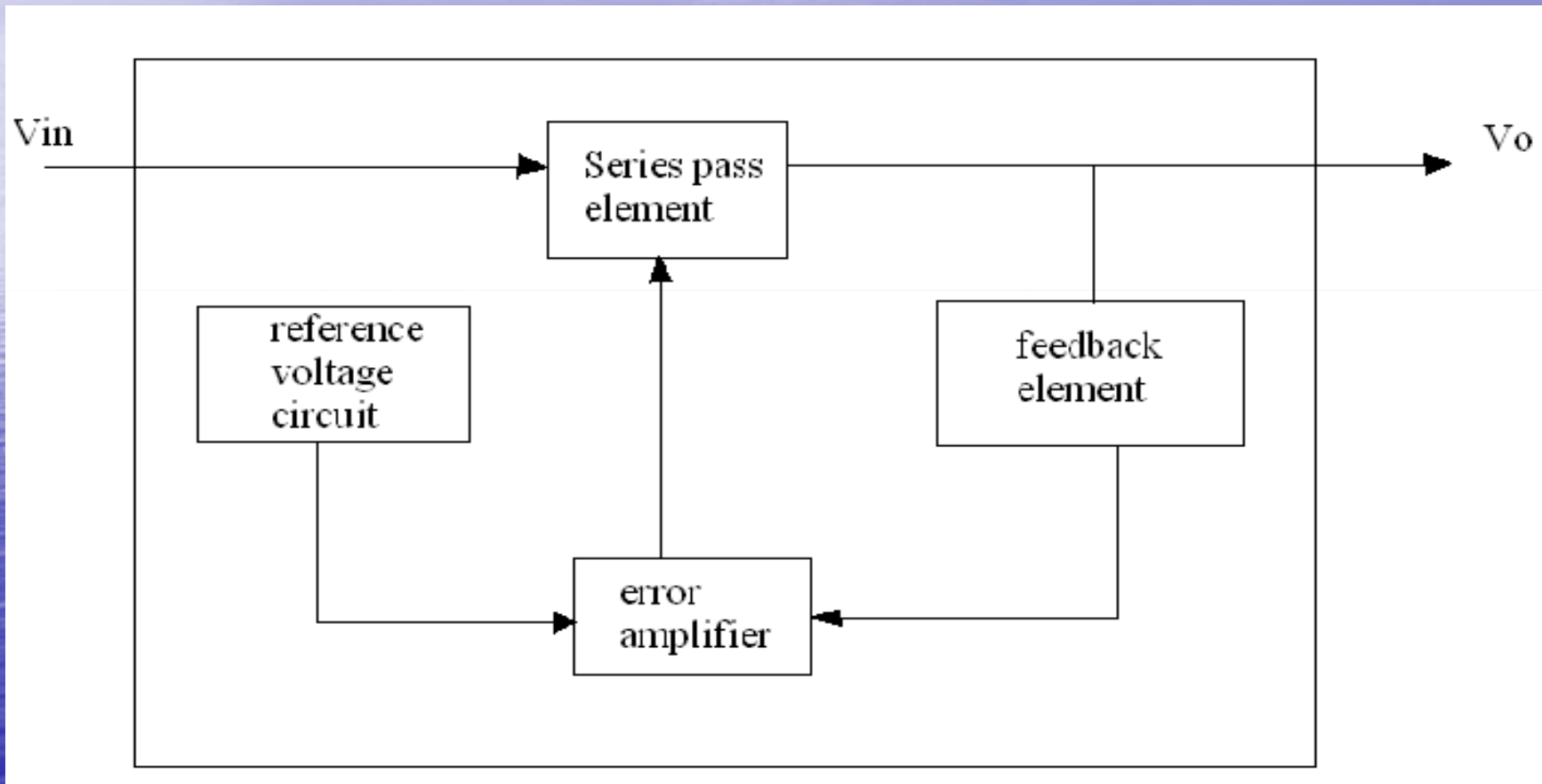
Voltage Supply

230V, 50Hz AC

input

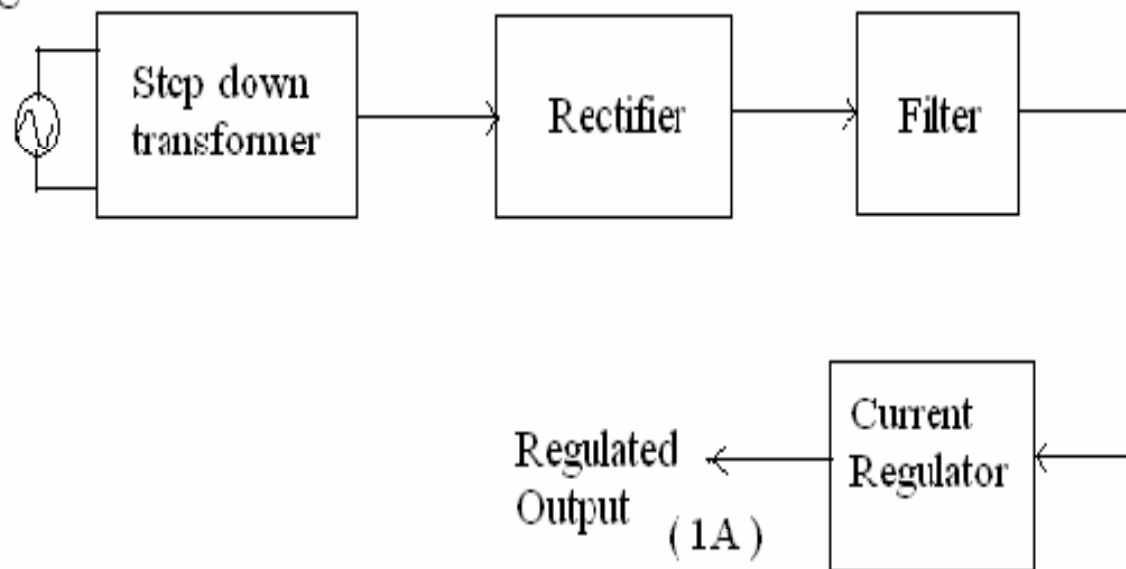


BLOCK DIAGRAM Voltage Regulator



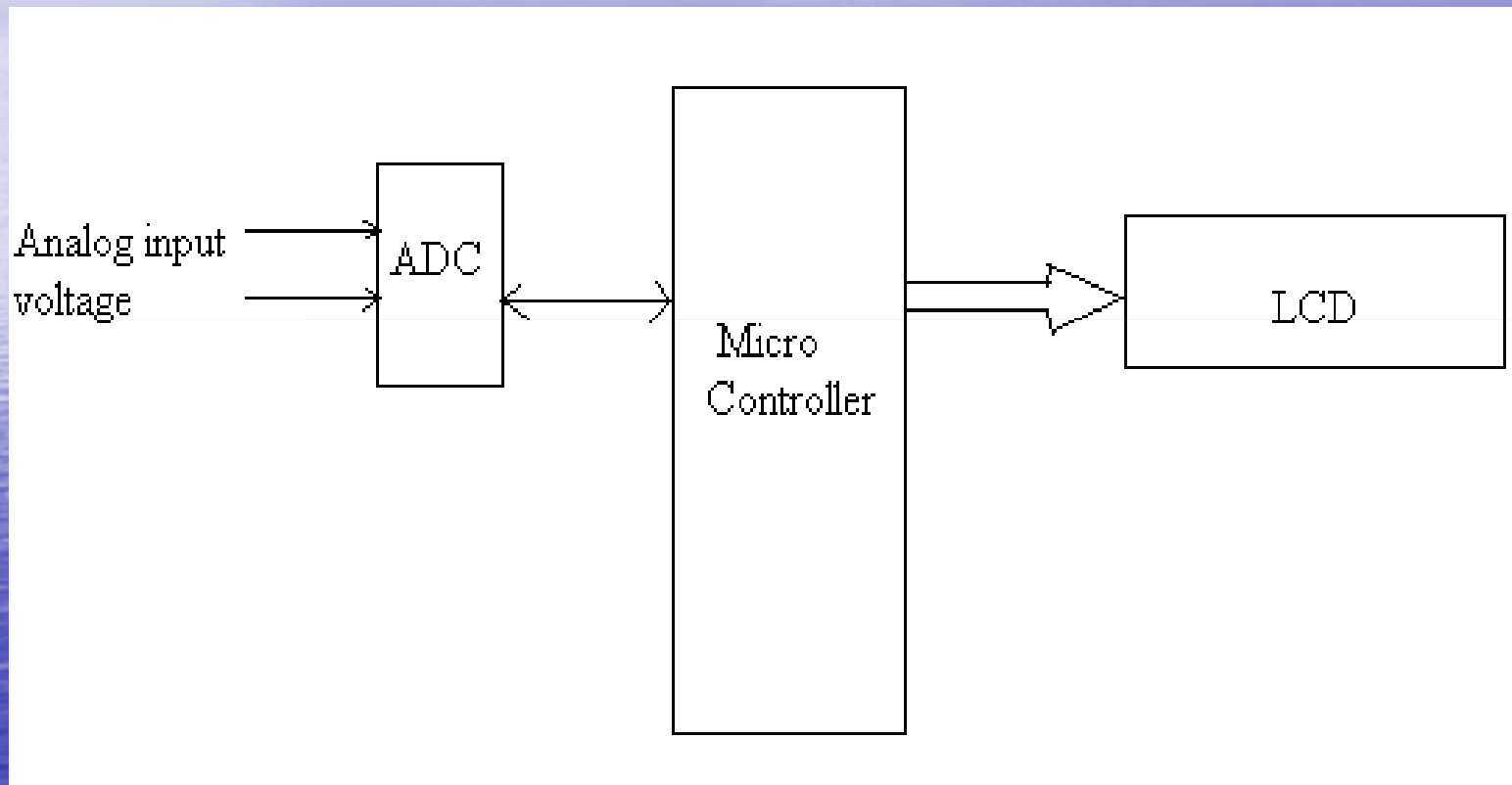
Constant Current Source

230V, 50Hz AC
input



BLOCK DIAGRAM

Display Section



RESULTS AND CONCLUSION

The 'Versatile Power Supply' which provides a voltage supply and a constant current source have been designed and produced.

ADVANTAGES AND APPLICATIONS

The use of adjustable voltage regulator ICs LM317, LM337 in our power supply has improved the system performance (line and load regulation), overload protection, and provided system reliability.

SCOPE FOR FUTURE WORK

- Can be implemented using switching voltage regulators which can provide efficiency up to 95%.
- At the same time, it produces a much complicate circuit to implement.