

# **ELECTRONICS**

## **Chapter one:-**

-The Fundamental electronics elements of power supply for laser systems.

- Linear resistors, Non – linear resistors.
- Photo resistors.
- Thermo resistors.
- Voltage- dependent resistors.
- Capa citors.
- Stored energy.
- Charging and discharging capacitors.
- Electrical coil and inductance of coils.
- Electrical generated.

## **Chapter two:-**

-Diodes and application.

- Diode use in the rectifier.
- Diodes half –wave rectifier.
- Diodes cut wave and on .
- Voltage doubters.
- Simple stabilized power supply.
- Zener diode.
- Zener diode ratings.
- Shottky diode.
- Tunnel diode.

## **Chapter three:-**

-The npn transistor, as a switch, as an amplifier, applications and uses.

#### **Chapter four:-**

- Thyristors.
- Methods of turning thyristors, on.
- The trigger circuit and phase control of the thruster in integral circuit.
- The diac.
- The triac
- The trigger circuit of power supply of the puls laser system.

#### **Chapter five:-**

- Application Integrated and electrical circuit
- The differentiation and integration circuits
- The square shapes circuits.
- Multivi brators
- The trigger circuit of the laser system.