Unique properties of LASER

- Highly Monochromatic
- Highly Coherent
- Well Collimated Beam
- Directional
- Wide Tuneability
- High Power

Due to these unique properties LASER has found wider applications in various field of commercial and research area.

Applications:-

❑ Scientific

- Spectroscopy
  - Non Linear Optics
  - Raman Spectroscopy
  - Laser Induced Breakdown Spectroscopy(LIBS)
  - Super Resolution Spectroscopy
  - Confocal Microscopy
  - Optical Coherence Tomography(OCT)
- Space technology
- Nuclear Fusion Reactors
- Astronomy

❑ Industrial/Commercial

- Optical Storage (CD/DVD)
- Reading Barcodes
- LASER Printers
- Engineering
  - Welding
  - Cutting
  - Peening
  - Soldering
  - Drilling
  - Cladding
  - Power Beaming

❑ Medical science

- Surgical Applications
  - LASIK in eye surgery
  - Soft tissue surgery
  - Endoscopic surgery
- Dermatology
  - Laparoscopy
  - Photodynamic therapy

❑ Military

- As a Weapon
- Detection and Communication purposes