

## CPOTS-2012 - Workshop Project

### Aims

Provide practical training

Encourages students to work to Schedule

Encourages students to work with others

Some suggestions may provide some ideas for projects and events.

Project aims, to develop electron gun working at different electron energies and voltage sets for obtaining ideal afocal beam sizes via simulation.

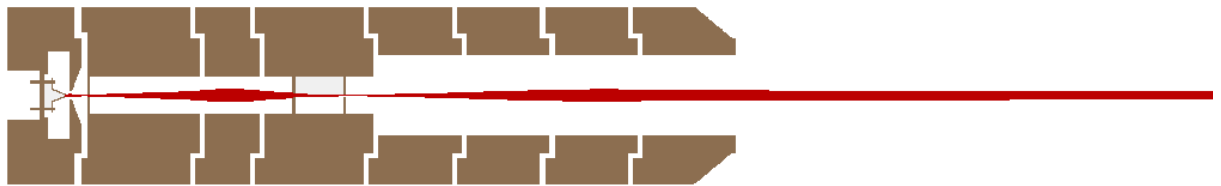
Start Date: 23.08.2012

End Date: 31.08.2012

Tasks include:

- a- A designed 7 element electron gun Simion 8.1 files

### Tasks:



- Design an electron gun that is working 50-1000 eV electron energies. An example is given in the Unit 2 lab. Section.
- Determine the available beam diameter size of 2, 3, 5 mm by setting different voltages on the lenses.
- Determine 1 mm diameter of electron beam for obtaining 200, 300 and 500 eV electron energies.