BITS Pilani K K Birla Goa Campus
Instruction Division, First Semester 2017-2018
Course Handout (Part II)

Date: July 27, 2017

Course No.:PHY F214
Course Title: Electricity, Magnetism and Optics Lab

Instructor in charge: Ram Shanker Patel

Instructors: V Sunilkumar, E S Kannan, Dhavala Suri, Chithira and Sakhi

1. **Scope and Objective:** This is a core laboratory course for all physics students that will introduce them to experiments related to electrostatics and magnetostatics including those that study the electric and magnetic properties of material media. The lab will also have basic experiments based on optics.

2. Text Books

1. H H Willard, L L Merritt and John A Dean, Instrumental Methods of Analysis, 6th Ed., CBS Publishers, New Delhi.
2. Lab manual available in the lab and on photon, LMS

3. Experiments: total 12

Electricity and Magnetism	**Optics**
1. MB Curve 2. Magnetic Field of Helmholtz Coils 3. Magnetic field in a current carrying conductor 4. LCR Circuit 5. Induction Impulse 6. Parallel plate capacitor	7. Michelson Interferometer 8. Laser Beam Characterisation 9. Difraction at Single and Double Slit 10. Newton's Rings 11. Difraction Grating 12. Fresnel Zone Plate

5. Evaluation Scheme:

1. Day to day lab performance: 65 %
   Day to day Performance (raw data upload and performance in the lab): 6
   Lab Report: 4
2. Pre lab quiz: 10%
3. Lab. Exam-2 hours: 25%

6. Notices: Course notices, references, grades and discussion will be put up on the Physics Moodle server.

7. Make-up Policy: Make-up will be granted only for medical cases leading to hospitalization and certified by the campus doctor.

Instructor-in-charge