



# **SNS COLLEGE OF ENGINEERING**

Kurumbapalayam (Po), Coimbatore – 641 107

**An Autonomous Institution**

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

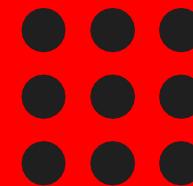
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**COURSE NAME : 19EE101-BASIC ELECTRICAL & ELECTRONICS ENGINEERING**

I YEAR /II SEMESTER COMPUTER SCIENCE & TECHNOLOGY

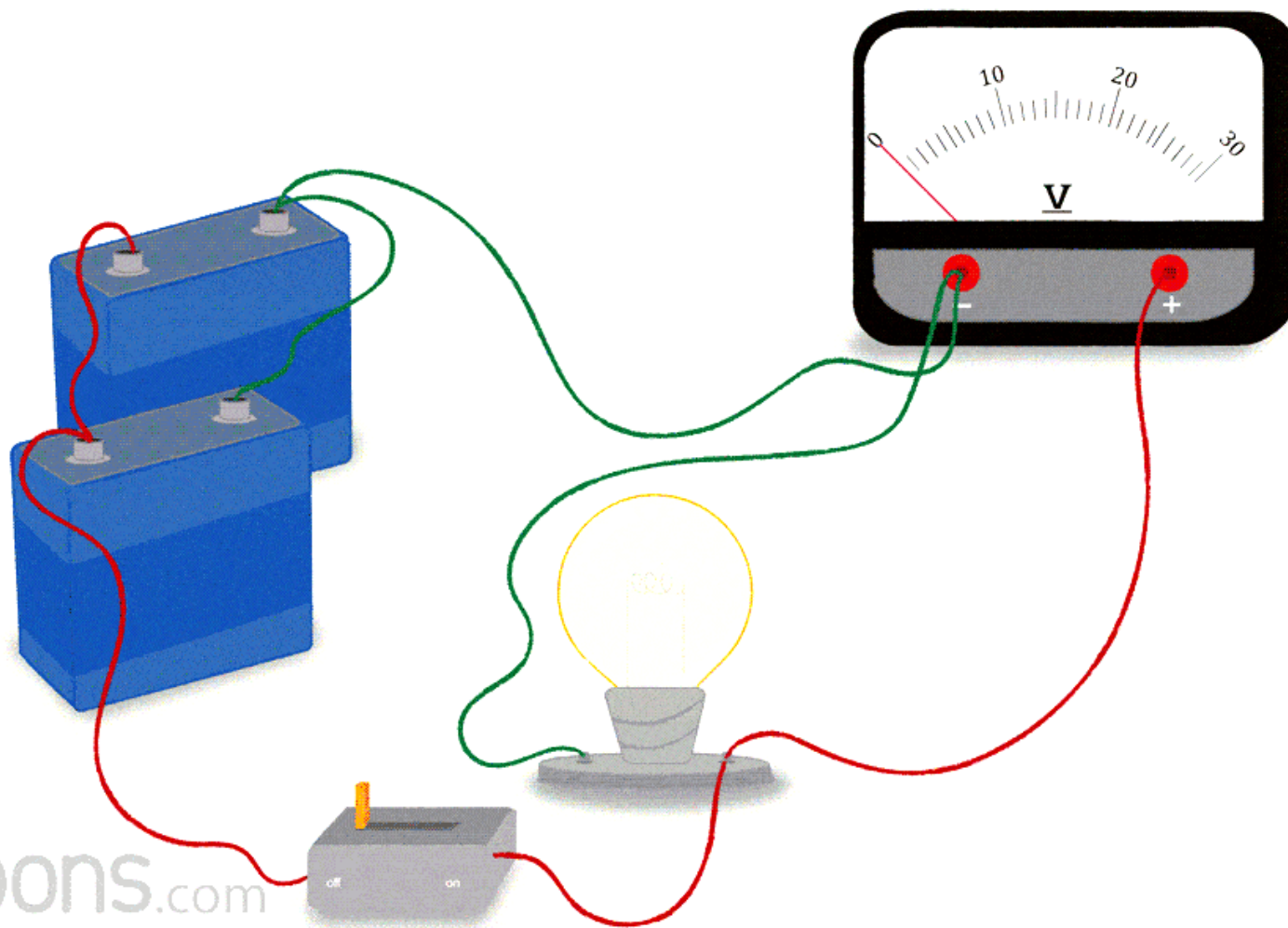
Unit 1: Electrical Circuits & Measurements

Topic : Measuring Instruments





# HOW IT IS WORKING? ANY GUESS?

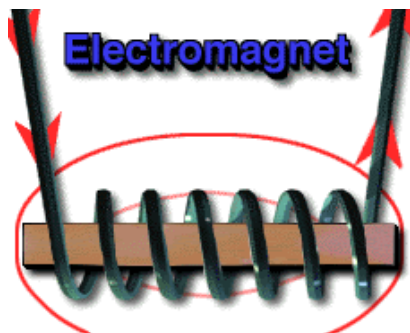


labtoons.com



# TORQUE IN MEASURING INSTRUMENTS

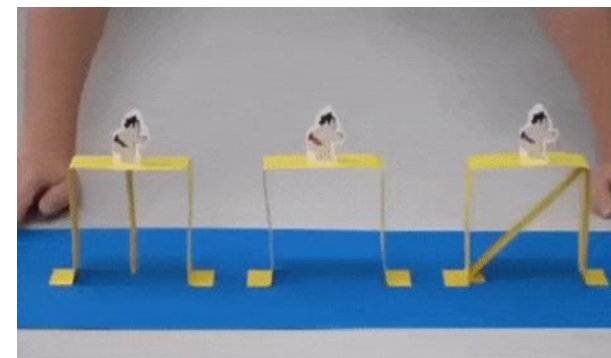
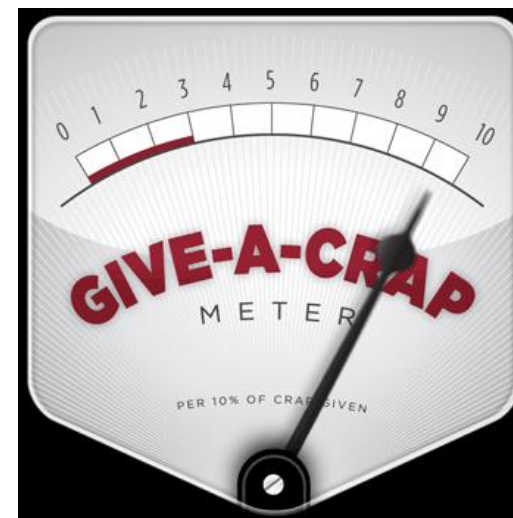
DEFLECTING TORQUE



CONTROLLING TORQUE

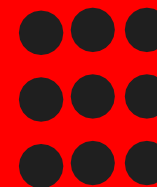


DAMPING TORQUE



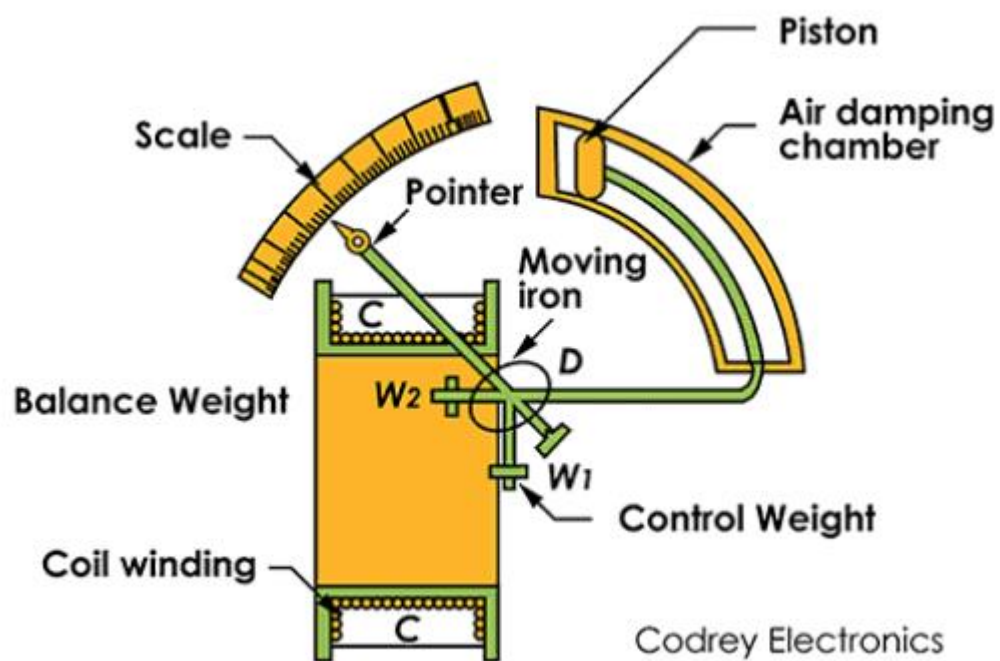


# MOVING IRON INSTRUMENT (MI)



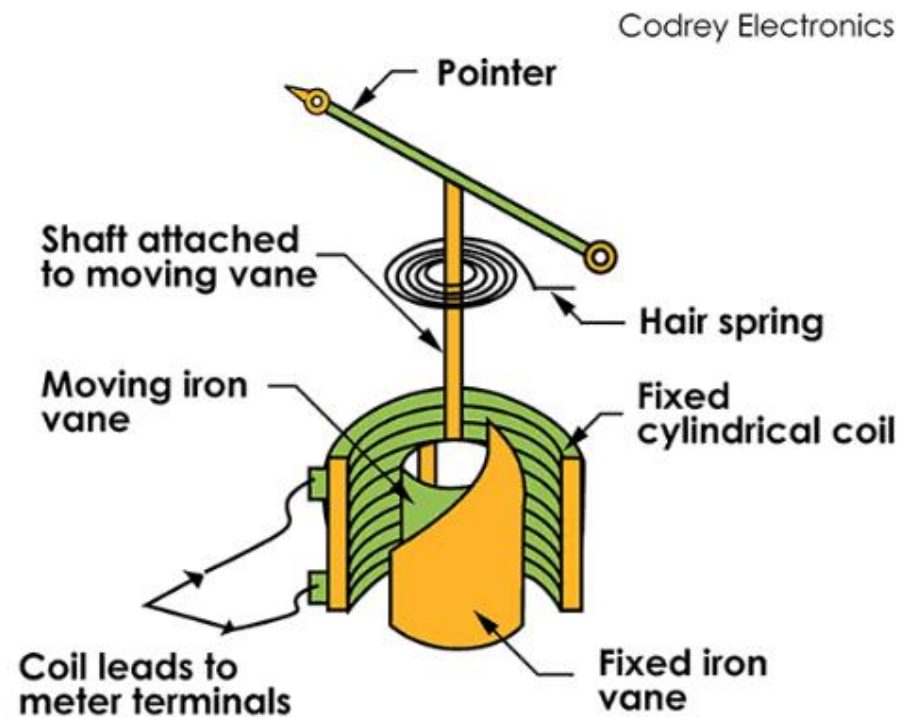
Attraction Type Moving Iron Instrument

Repulsion Type Moving Iron Instrument



Attraction Type Moving Iron

Codrey Electronics



Codrey Electronics

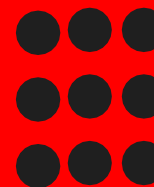
Repulsion Type Moving Iron

## AC MEASUREMENT

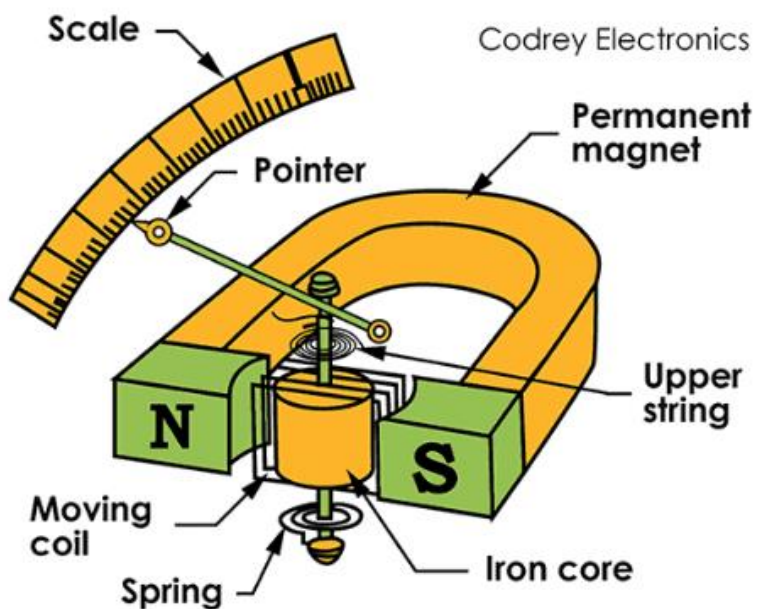




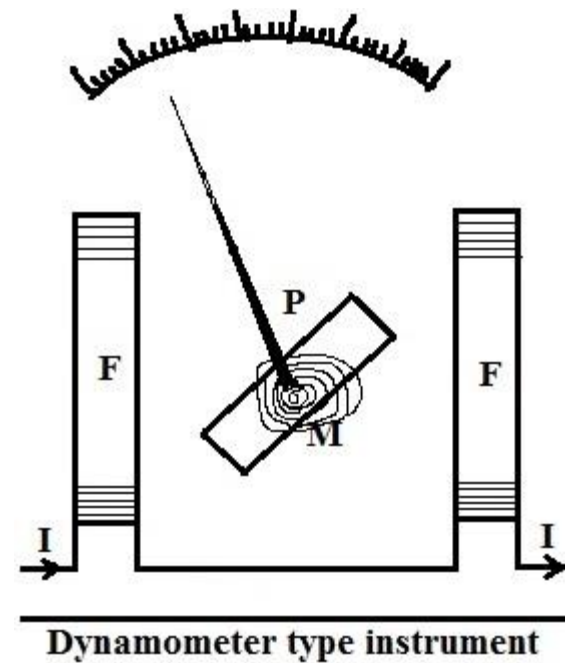
# MOVING COIL INSTRUMENT (MC)



## PERMANENT MAGNET MOVING COIL INSTRUMENT



*Moving Coil Measuring Instrument*

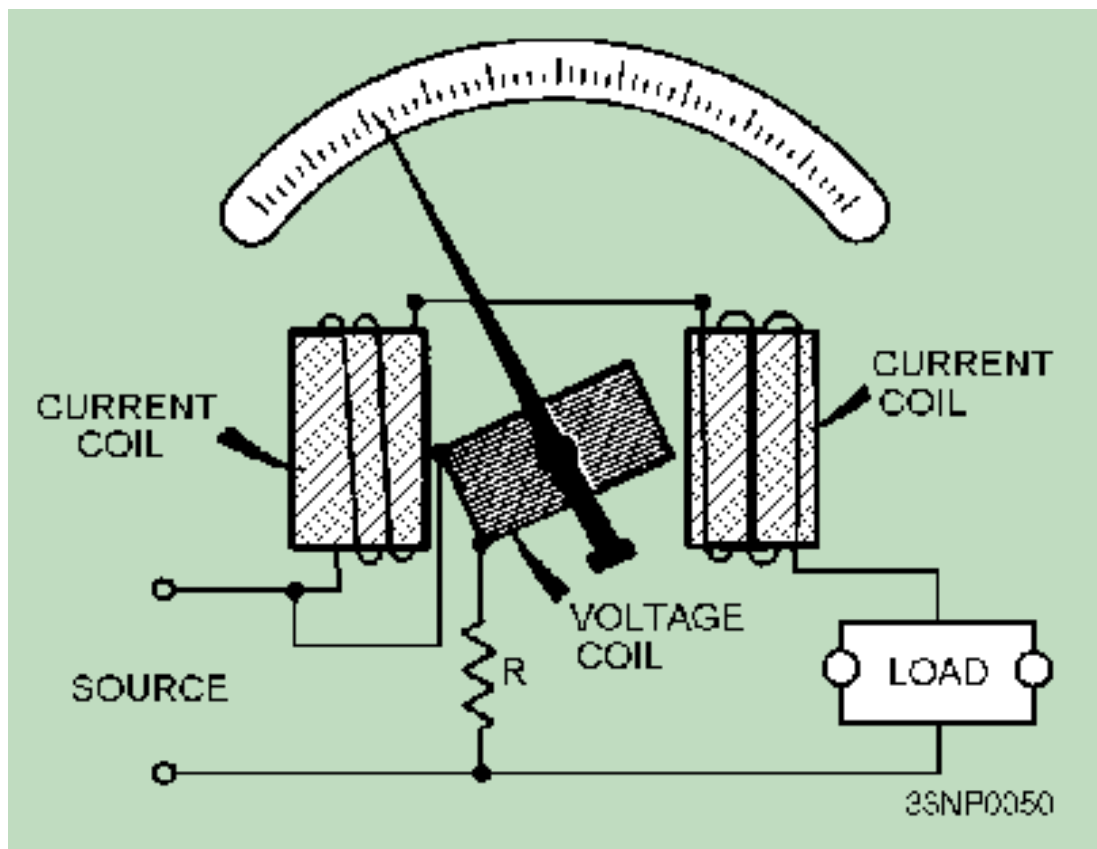


## DYNAMOMETER TYPE MOVING COIL INSTRUMENT





# DYNAMOMETER TYPE WATTMETER

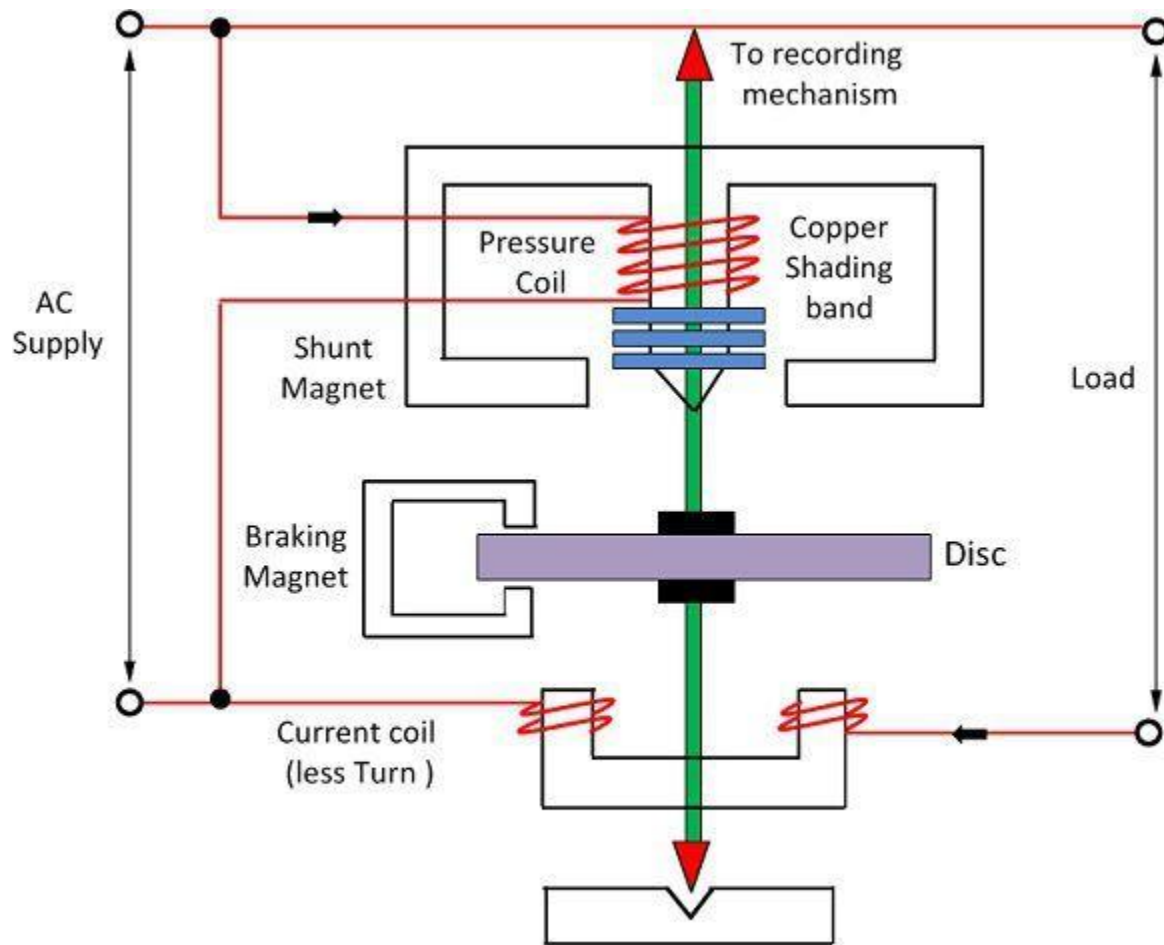


To measure AC Power





# ENERGY METER



Induction Type Energy Meter

Circuit Globe



# REFERENCES

1. Muthusubramanian R, Salivahanan S, “Basic Electrical and Electronics Engineering”, Tata McGraw Hill Publishers, (2009) - UNIT I – V
2. Bhattacharya. S.K, “Basic Electrical and Electronics Engineering”, Pearson Education , (2017) – UNIT I – IV
3. Mehta V K, Mehta Rohit, “Principles of Electrical Engineering and Electronics”, S.Chand & Company Ltd, (2010)- UNIT I and II
4. Mehta V K, Mehta Rohit, “Principles of Electronics”, S.Chand & Company Ltd, (2005)- UNIT IV and V

## THANK YOU