SNS COLLEGE OF TECHNOLOGY

An Autonomous Institution

Coimbatore-35

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

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

IYEAR/ II SEMESTER

20 ECT201 Basics of Electrical Engineering and Instrumentation

TOPIC– DC GENERATOR –Characteristics

Characteristics of DC generator

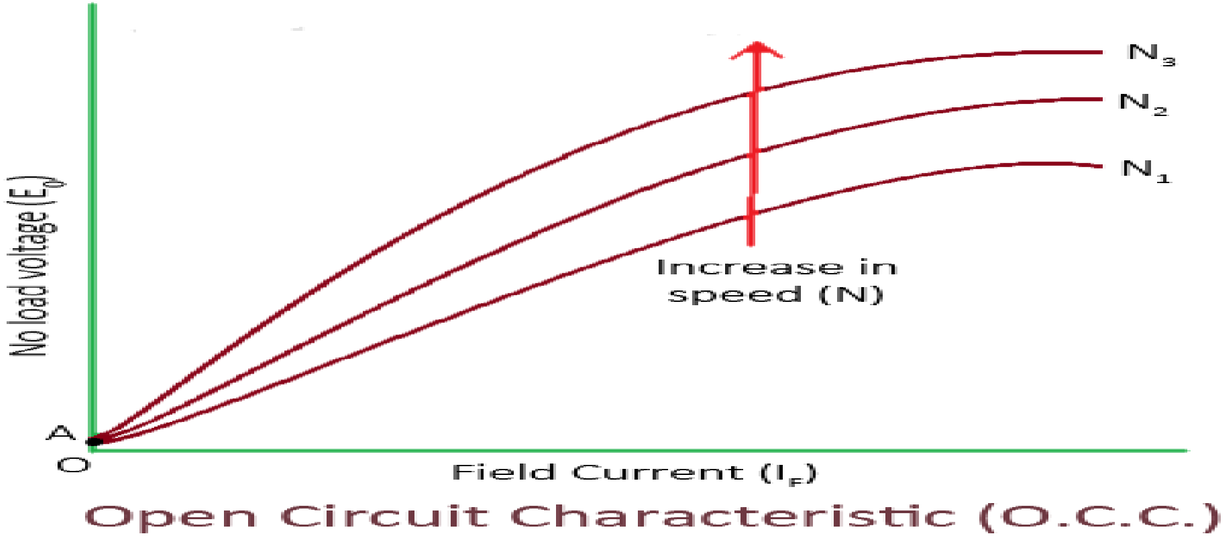
(i) Open Circuit Characteristic (O.C.C.),

(ii) Internal or Total Characteristic

(iii) External Characteristic.

Open Circuit Characteristic (O.C.C.),

- This characteristic shows the relation between generated emf at no load (E_0) and the field current (I_f) at a given fixed speed



Open Circuit Characteristic (O.C.C.)

- The data for O.C.C. curve is obtained by operating the generator at no load and keeping a constant speed.
- Field current is gradually increased and the corresponding terminal voltage is recorded.

2. Internal Or Total Characteristic (E/I_a)

- An internal characteristic curve shows the relation between the on-load generated emf (Eg) and the armature current (I_a).
- The on-load generated emf Eg is always less than E_0 due to the armature reaction.

3. External Characteristic. (V/I_L)

- An external characteristic curve shows the relation between terminal voltage (V) and the load current (I_L).
- Terminal voltage V is less than the generated emf Eg due to voltage drop in the armature circuit.

THANK YOU