Course Outline 1.2 Slight Skew 1– it helps to make the motor run quietly by reducing the magnetic hum 2– Reducing Air Gap and Cogging 3– Increasing R, rugged 4– increase in the effective ratio of transformation between stator and rotor (K) 5– increased impedance of the machine at a given slip 6– increased slip for a given torque.2 Reference: Electrical Engineering By Theraja Volume – II AC& DC Machines 3– principle operations of (SG, SM) 2 Syllabus Induction Machine: ?2 INDUCTION MOTOR Classification of A.C. Motors 1– Regards As Their Principle Of Operation : Asynchronous induction Squirrel cage Slip–ring commutator series shunt repulsion Synchronous 10 ????DC. motor in AC motors, the rotor does not receive electric power by conduction but by induction in exactly the same way as the secondary of a 2–winding transformer receives its power from the primary Induction 12 ?.Induction Motors: –Principle of operation –Constructional details –Type of IM ?Induction Generators: –Principle of operation Midterm Exam (third week in November) Synchronous: ? 2 In DC. motors, the electric power is conducted directly to the armature (i.e. rotating part) through brushes and commutator can be called a conduction motor.Introduction to AC Machinery Principles 2– principle operations of (IM, IG) ?.This rotating field induces currents in the rotor by electromagnetic induction p f Ns 120 ?2 b) Rotor i) Squirrel–cage rotor (90%) oThe cage is constructed from rotor bars (generally copper), o The bars are then shorted together with end rings at either end o There are no slip rings nor any simplest and most rugged 15 ?.Synchronous Motors: –Principle of operation 3 ?.2 Why Induction motor ????????– ??????????????– ??????????????– ??????????????– ??????????2 ?.???????– ??????????????– ??????????????????– ??????????2 ?.???????– ??????????????2 ????????????6 ?.???????– ??????????????2 ?????????????????????????????????????????????????????????????????????!????????????? ??????????????????????????7 ??????????2 ??????????????– ?8 ??????????2 ??????????????– ?9 ?.???????– ??????????????– ??????????????2 ??????????????– .???????– 11 ??.???????– ??????????????– ??????????????– ??????????????– ??????????13 ?.???????– ??????????????– ???????????.???????– ??????????????– ??????????????– ??????????????– ??????????16 ?.???????– ??????????????– ??????????????– ??????????????– ??????????????2 ??????????????– .???????– 19 ??.???????– ??????????????– ??????????????2 ??????????????– ?21 ?.???????– ??????????????– ??????????22 ??????????2