## AGU Course Record Catalogue



| Code          | ECE 607                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name          | Design of Variable Reluctance Machines                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Hour per week | 3 (3+0)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Credit        | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| ECTS          | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Level/Year    | Graduate / Master, Ph.D.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Semester      | Fall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Туре          | Elective                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Prerequisites | EE 308 Electrical Machines and Drives                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Content       | Fundamentals of VRM Analysis. Practical VRM Configurations. Current Waveforms for Torque Production. VRM Drives. Nonlinear Analysis. Performance Analysis of VRMs and VRM Drives by Software Simulations. Loss, Efficiency and Torque Calculations. Paper Reviews on the Subject. Evaluation of Selected Studies Carried on Reviewed Papers by means of Software Simulations. Step Motors. Various Configurations of Step Motors. Step Motor Control Methods and Step Motor Drives. Paper Reviews on the Subject. |