**Course Syllabus**

Academic year: 2020-2021

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| Institution | University of Petroşani |
| Faculty | Mechanical and Electrical Engineering |
| Field of study | Electrical Engineering |
| Level | Bachelor |
| Program of study | Electromechanics |

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| Course | **Electric Traction** |
| Code | 2EE8OS61 |
| Year of study (semester) | IV (II) |
| Number of hours | 56 |
| Number of credits | 4 |
| Professor | Assoc. Prof., Ph.D. UȚU Ilie |

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| **No.** | **Topic** |
|  | Introduction. Definitions, Classification and symbolization of electric vehicles on land. The general structure of an electric drive system. |
|  | Theoretical foundation of the movement of a convoy. The equation of motion of the convoy. Making the thrust. Making braking force. Drag the convoy. Principles of construction diagrams walk. |
|  | The drive motor unit (individual drives and group drives). |
|  | Electric traction motors (DC motors, induction motors, synchronous motors with electromagnetic excitation, as permanent magnet motors, linear motors) and electric drive systems specific electric traction. |
|  | Units powered engines nip DC (possible solutions; engine control unit). |
|  | Units powered motors in AC line contact. (possible solutions, engine control units). |
|  | Diesel-electric units (specific problems, possible solutions, engine control units). |
|  | Specific aspects of electrical drive systems for high-speed trains |