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| STUDY MODULE DESCRIPTION FORM   |                                       |   |     |   |        |   |  |
|---|---------------------------------------|---|-----|---|--------|---|--|
|   | f the module/subject  Oma seminar     |   |     |   | 10°    | de<br>10314391010310081                         |  |
| Field of  | study                                 |   |     | Profile of study<br>(general academic, practica | ı)     | Year /Semester                                  |  |
| Elec  | trical Engineerin                     | g   |     | (brak)  | ,      | 5/9   |  |
| Elective path/specialty  Networks and Electric Power Systems  |                                       |   |     | Subject offered in:  Polish                     |        | Course (compulsory, elective) <b>obligatory</b> |  |
| Cycle of  |                                       | a Electric i en el eyeteme  |     | m of study (full-time,part-time                 | 1)     | obligatory                                      |  |
|   | •                                     | cle studies   |     | part-time                                       |        |   |  |
| No. of h  | ours                                  |   |     |   |        | No. of credits                                  |  |
| Lectur  | e: - Classes                          | s: - Laboratory: -  |     | Project/seminars:                               | 18     | 13  |  |
| Status o  | of the course in the study            | program (Basic, major, other)   | (   | (university-wide, from another                  | field) |   |  |
|   |                                       | (brak)  |     |   | (br    | ak)   |  |
| Education   | on areas and fields of sci            | ence and art  |     |   |        | ECTS distribution (number and %)                |  |
| techr   | ical sciences                         |   |     |   |        | 13 100%   |  |
|   | Technical scie                        | ences   |     |   |        | 13 100%   |  |
|   |                                       |   |     |   |        |   |  |
| Resp  | onsible for subje                     | ect / lecturer:   |     |   |        |   |  |
|   | . dr hab. inż. Józef Lo               |   |     |   |        |   |  |
|   | ail: jozef.lorenc@put.p<br>61 6652279 | oznan.pl  |     |   |        |   |  |
|   | dział Elektryczny                     |   |     |   |        |   |  |
| ul. F   | Piotrowo 3A 60-965 Po                 | oznań   |     |   |        |   |  |
| Prere   | quisites in term                      | s of knowledge, skills and  | d s | ocial competencies                              | :      |   |  |
| 1   | Knowledge                             | He/she has knowledge in frame knows principles of author rights       |     | netrology of measurement                        | s, de  | velopment trends and                            |  |
| 2   | Skills                                | He/she can use available literature in printed and electronic version |     |   |        |   |  |
| 3   | Social competencies                   | He/she has consciousness of consequenced of own work results.         |     |   |        |   |  |
| Assu  | •                                     | ectives of the course:  |     |   |        |   |  |
| Presentation of investigation results, Analysis and conclusions of problems analysed in diploma thesis.   |                                       |   |     |   |        |   |  |
| Study outcomes and reference to the educational results for a field of study  |                                       |   |     |   |        |   |  |
| Know  | /ledge:                               |   |     |   |        |   |  |
| 1. He/she knows detailed principles of application of author rights during preparation diploma thesis in frame of network and electric power engineering - [K_W21+++] |                                       |   |     |   |        |   |  |
| Skills:   |                                       |   |     |   |        |   |  |
| 1. He/she can prepare and present short presentation abort task in frame of electric power engineering - [K_U08+++]   |                                       |   |     |   |        |   |  |
| 2. He/she can compare various Project solution in range of fundamental problems in frame of electric power engineering - [K_U12+++]                                   |                                       |   |     |   |        |   |  |
| Social competencies:  |                                       |   |     |   |        |   |  |
| 1. He/s   | he is ready to conforn                | n to principles of work in teem in fr                                 | ame | e of electric power engine                      | ering  | K_K03+ - [K_K03+]                               |  |
|   |                                       |   |     |   |        |   |  |
|   |                                       |   |     |   |        |   |  |

| Assessment methods of study outcomes   |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| Assessment of prepared presentations of individual parts of diploma thesis in form of slides (results, Analysis of results, conclusions) |  |  |  |  |  |  |
| Course description   |  |  |  |  |  |  |
| 4 Decembering of investigation results and Arabasis of shapes much less  |  |  |  |  |  |  |

- 1. Presentation of investigation results and Analysis of chosen problem
- 2.Formulate logical conclusions, which are results of investigations and analysis

# Faculty of Electrical Engineering

## Basic bibliography:

- 1. Description of genesis, aim, thesis, and range of investigations and problems analysis
- 2. Polish-English dictionary
- 3. Specialist literature (books, conferences proceedings)
- 4. Lexicons, encyclopedias, technical guides

### Additional bibliography:

1. Very well prepared diploma thesis

## Result of average student's workload

| Activity                           | Time (working hours) |
|------------------------------------|----------------------|
| 1. Participation in seminar        | 18                   |
| 2. Analysis of literature          | 40                   |
| 3. Laboratory and results analysis | 160                  |
| 4. Consulation with supervisor     | 70                   |
| 5. Preparation of presentation     | 10                   |
| 6. Preparation to diploma exam     | 10                   |
| 7. Participation in diploma exam   | 1                    |

#### Student's workload

| Source of workload   | hours | ECTS |  |  |  |  |  |
|----------------------|-------|------|--|--|--|--|--|
| Total workload       | 309   | 13   |  |  |  |  |  |
| Contact hours        | 89    | 5    |  |  |  |  |  |
| Practical activities | 178   | 8    |  |  |  |  |  |