

DESCRIPTION OF THE COURSES

- Course code: ELR2308
- Course title: Intelligent electrical installations – computer design and applications
- Language of the lecturer: Polish

| <i>Course form</i> | <i>Lecture</i> | <i>Classes</i> | <i>Laboratory</i> | <i>Project</i> | <i>Seminar</i> |
|--------------------------------------|----------------|----------------|---|---------------------------------------|----------------|
| <i>Number of hours/week*</i> | 0 | 0 | 1 | 1 | 0 |
| <i>Number of hours/semester*</i> | 0 | 0 | 15 | 15 | 0 |
| <i>Form of the course completion</i> | | | <i>completion of laboratory exercises</i> | <i>completion of the project task</i> | |
| <i>ECTS credits</i> | | | | | |
| <i>Total Student's Workload</i> | | | | | |

- Level of the course (basic/advanced): advanced
- Prerequisites: Intelligent installations
- Name, first name and degree of the lecturer/supervisor:
Antoni Klajn, dr inż.
- Names, first names and degrees of the team's members:
Waldemar Dołęga dr inż.
Kazimierz Herlender dr inż.
Mirosław Kobusiński mgr inż.
Małgorzata Bielówka mgr inż.
Surówka Ireneusz mgr inż.
- Year:..... Semester:.....
- Type of the course (obligatory/optional): optional
- Aims of the course (effects of the course):
To gain the practical knowledge in programming, design and putting into operation of the intelligent installation. To become acquainted with construction and connection manner of installation elements.
- Form of the teaching (traditional/e-learning): traditional
- Course description:
Tool programs of chosen intelligent installation systems, especially with programs of the systems KNX/EIB and LCN. Exercises concerning programming of the installation. Putting of the installation into operation and correction of the realised functions in the used installation. Practical knowledge concerning construction of the installation modules and its connection with the installation. Elaboration of the project task.
- Lecture:

| <i>Particular lectures contents</i> | <i>Number of hours</i> |
|-------------------------------------|------------------------|
| <i>1.</i> | |

- Classes – the contents:
- Seminars – the contents:

- Laboratory – the contents:

| <i>Content of the laboratory exercises</i> | <i>Number of hours</i> |
|---|------------------------|
| 1. The introductory and organisation lesson . | 1 |
| 2. Installation with the relais-controlled system - system SI. | 2 |
| 3. Realisation of the design exercise in the tool programme ETS. | 2 |
| 4. Realisation of the design exercise in the tool programme LCN. | 2 |
| 5. Putting into operation of the installation in the KNX/EIB system and realisation of changes in realised functions. | 2 |
| 6. Putting into operation of the installation in the LCN system and realisation of changes in realised functions. | 2 |
| 7. Chosen, advanced functions of the system KNX/EIB | 2 |
| 8. Chosen, advanced functions of the system LCN | 2 |

- Project – the contents:

Realisation of the project of the intelligent electrical installation in a small office building, market or a flat.

- Basic literature:

1. Markiewicz H.: Instalacje elektryczne. WNT, Warszawa 2006.
2. Klajn A., Bielówka M.: Instalacja elektryczna w systemie KNX/EIB. Podręcznik INPE –dodatek dla prenumeratorów miesięcznika INPE, COSiW SEP, 2006.
3. Petykiewicz P.: Nowoczesna instalacja elektryczna w inteligentnym budynku. COSiW SEP, Warszawa, 2001.

- Additional literature:

1. PN-EN 50090, Domowe i budynkowe systemy elektroniczne (Home and buildings electronic systems; HBES) (chosen parts of the standard).

- Conditions of the course acceptance/creditation: Completion of the laboratory exercises and realisation of the project.

* - depending on a system of studies