

**DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND  
TECHNOLOGY**

**SUPERVISOR/TEAM/ DECLARING/CONDUCTING COURSE:** Halina Kwaśnicka  
**DEPARTMENT:** Department of IT and Management W8  
**SCIENTIFIC DISCIPLINE:** Technical information and telecommunications

**COURSE CARD**

**Course name in Polish:** Inteligentne techniki i ich zastosowania  
**Course name in English:** Intelligent Techniques and their applications  
**Course language Polish / English\***  
**University-wide general course type**  
**The course is intended for all PhD students: YES /NO**

- 1) ~~BASIC COURSE~~
- 2) ~~SPECIALIST COURSE~~
- 3) SEMINAR
- 4) ~~HUMANISTIC COURSE~~
- 5) ~~LANGUAGE~~

**Subject code: ITQ100079S**

\* delete as applicable

|  | Lecture | Foreign language course | Seminar           | Mixed forms |
|--|---------|-------------------------|-------------------|-------------|
| Number of hours of organized classes in university (ZZU) |         |                         | 15                |             |
| Grading  | Exam    | Exam                    | Oral presentation |             |
| Number of ECTS points                                    |         |                         | 0                 |             |

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. Basic knowledge on a selected area of artificial intelligence, e.g. machine learning, knowledge engineering, metaheuristics, ...
2. The ability to search for scientific information on a given topic
3. Skill in preparation a and oral presentation on a given topic

**COURSE OBJECTIVES**

- C1 Getting to know the intelligent methods and their applications in the area subject to the PhD student's research
- C2 Getting to know the potential applications of different intelligent methods in various practical issues
- C3 Improving the skill of scientific discourse

**PROGRAM CONTENTS**

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| <b>Form of classes – seminar (Sem)</b> |  | Number of hours |
|--|--|-----------------|
| Sem1                                   | Discussing the purpose, scope and manner of the seminar implementation, setting the dates and topics of the papers | 2               |
| Sem2                                   | Individual presentations of topics related to the study area of a PhD student                                      | 12              |
| Sem3                                   | Summary of classes   | 1               |
| Total hours:                           |  | 15              |

| <b>TEACHING TOOLS USED</b>  |
|---|
| N1. Projector and other audiovisual media, depending on needs and possibilities<br>N2. Panel discussions, as time is available (after the speeches of all participants of the course) |

| <b>ACHIEVED SUBJECT LEARNING OUTCOMES</b> |                          |  |
|---|--------------------------|--|
| Type of learning outcome                  | Code of learning outcome | Assessment of learning outcome   |
| Knowledge                                 | P8S_WG                   | Assessment of the content of the presentation                                |
| Skills                                    | P8S_UW                   | Assessment of activity and argumentation in the discussion part of the class |
| Social competence                         | P8S_UK                   | Evaluation of the clarity and presentation method                            |

| <b>PRIMARY AND SECONDARY LITERATURE</b>   |
|---|
| <p><b><u>PRIMARY LITERATURE:</u></b></p> <p>[1] Current scientific publications, including articles in journals with a high impact factor. Examples of titles are: IEEE Transactions on Industrial Informatics, IEEE Transactions on Neural Networks and Learning Systems, Artificial Intelligence Review, IEEE Transactions on Pattern Analysis and Machine Intelligence, Artificial Intelligence, Knowledge-Based Systems, and any other journals that are important in the scientific community.</p> <p>[2] Current conference publications of scientific conferences that are important in the world scientific community.</p> <p><b><u>SECONDARY LITERATURE:</u></b></p> <p>[1] Any sources on: How to prepare and well present a scientific presentation.</p> |
| <p><b>SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)</b></p> <p><b>Halina Kwaśnicka, halina.kwasnicka@pwr.edu.pl</b></p>   |