1. Course title: WIRELESS COMPUTER NETWORKS

2. Course code

3. Validity of course description: 2017/2018

4. Level of studies: MA, MSc programme / 2nd cycle of higher education

5. Mode of studies: intramural studies

6. Field of study: MACROFACULTY (FACULTY SYMBOL)

7. Profile of studies: general, practical

8. Programme: Electronics, Informatics

9. Semester: 2

10. Faculty teaching the course: Institute of Informatics

11. Course instructor: dr hab. inż. Bartłomiej Zieliński

12. Course classification:

13. Course status: compulsory

14. Language of instruction: English

15. Pre-requisite qualifications: Computer Networks, Microprocessor Systems, Embedded Systems


17. Description of learning outcomes:

<table>
<thead>
<tr>
<th>Nr</th>
<th>Learning outcomes description</th>
<th>Method of assessment</th>
<th>Teaching methods</th>
<th>Learning outcomes reference code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Has theoretically supported detailed knowledge corresponding to the key problems of operating systems, internet technologies and security of computer systems and networks</td>
<td>SP, CL, PS</td>
<td>W, L</td>
<td>K2A_W15</td>
</tr>
<tr>
<td>2.</td>
<td>Can configure communication devices in local and wide area (wired and radio) teleinformatics networks</td>
<td>SP, CL, PS</td>
<td>W, L</td>
<td>K2A_U22</td>
</tr>
<tr>
<td>3.</td>
<td>Can cooperate and work in group accepting various roles</td>
<td>CL, PS</td>
<td>L</td>
<td>K2A_K03</td>
</tr>
</tbody>
</table>

18. Teaching modes and hours

Lecture / BA / MA Seminar / Class / Project / Laboratory

15 / 0 / 0 / 0 / 15

19. Syllabus description:

6. Medium access protocols in wireless local networks. Problem description. Hidden and exposed nodes, capture effect,


Laboratories:
1. Packet Radio network and TNC controllers
2. IEEE 802.11 local area networks
3. Bluetooth and IrDA personal area networks
4. Low power radio circuits
5. GPS
6. GSM data transfer

20. Examination: no (optional)

21. Primary sources:
Zieliński B.: Bezprzewodowe sieci komputerowe. Helion, Gliwice 2000 (in Polish)

22. Secondary sources:

23. Total workload required to achieve learning outcomes

<table>
<thead>
<tr>
<th>Lp.</th>
<th>Teaching mode</th>
<th>Contact hours / Student workload hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lecture</td>
<td>15 / 15</td>
</tr>
<tr>
<td>2</td>
<td>Classes</td>
<td>/</td>
</tr>
<tr>
<td>3</td>
<td>Laboratory</td>
<td>15 / 15</td>
</tr>
<tr>
<td>4</td>
<td>Project</td>
<td>/</td>
</tr>
<tr>
<td>5</td>
<td>BA/ MA Seminar</td>
<td>/</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>Total number of hours</td>
<td>30 / 30</td>
</tr>
</tbody>
</table>

24. Total hours: 60

25. Number of ECTS credits:

26. Number of ECTS credits allocated for contact hours:

27. Number of ECTS credits allocated for in-practice hours (laboratory classes, projects):

28. Comments:

Approved:

........................... (date, Instructor’s signature)
........................... (date, the Director of the Faculty Unit signature)