

# PRACTICAL WORK SYLLABUS <sup>1</sup>

## 1. Information about the program

|                                                           |                                                                                  |
|-----------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>1.1</b> Higher education institution                   | <b>Politehnica University Timisoara</b>                                          |
| <b>1.2</b> Faculty <sup>2</sup> / Department <sup>3</sup> | ELECTRONICS, TELECOMMUNICATIONS AND INFORMATION TECHNOLOGIES / Communications    |
| <b>1.3</b> Field of study (name/code <sup>4</sup> )       | Electronics, Telecommunications and Information Technologies Engineering /202010 |
| <b>1.4</b> Study cycle/Type of study program <sup>5</sup> | Master / Research Master                                                         |
| <b>1.5</b> Study program (name/code/qualification)        | Communications Networks / 20.20.10                                               |

## 2. Information about discipline

|                                                                    |                                |                               |               |                               |   |                                              |     |
|--------------------------------------------------------------------|--------------------------------|-------------------------------|---------------|-------------------------------|---|----------------------------------------------|-----|
| <b>2.1a</b> Type of practical work <sup>6</sup>                    | Research practice 2            |                               |               |                               |   |                                              |     |
| <b>2.1b</b> Type of practical work in Romanian                     | Practică de cercetare 2        |                               |               |                               |   |                                              |     |
| <b>2.2</b> Coordinator (holder) of applied activities <sup>7</sup> | Prof. dr. eng. Corina Nafornta |                               |               |                               |   |                                              |     |
| <b>2.3</b> Year of study <sup>8</sup>                              | 1                              | <b>2.4</b> Semester           | 2             | <b>2.5</b> Type of evaluation | V | <b>2.6</b> Regime of discipline <sup>9</sup> | DOB |
| <b>2.7</b> Academic year <sup>10</sup>                             | 2025-2026                      | <b>2.8.</b> Cod of discipline | M232.25.02.C5 |                               |   |                                              |     |

## 3. Total estimated time (direct practical activities, partially assisted activities)

|                                                      |       |
|------------------------------------------------------|-------|
| <b>3.1</b> Number of hours fully assisted/week       | 11    |
| <b>3.2</b> Total number of hours fully assisted/sem. | 14.29 |
| <b>3.3</b> No. of credits                            | 8     |

## 4. Prerequisites (where applicable)

|                              |                                                                                                                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>4.1</b> Curriculum        | <ul style="list-style-type: none"> <li>The aspects addressed in the previous semester at Research Practice 1 are continued, an adjacent or interdisciplinary research field can be chosen.</li> </ul> |
| <b>4.2</b> Learning outcomes | <ul style="list-style-type: none"> <li>n/a</li> </ul>                                                                                                                                                 |

## 5. Mission of the Practical Work and conditions for its accomplishment<sup>10</sup>

|                                                                |                                                                                                                                                             |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>5.1</b> Mission                                             | <ul style="list-style-type: none"> <li>Developing the student's research skills</li> </ul>                                                                  |
| <b>5.2</b> Conditions required to carry out the practical work | <ul style="list-style-type: none"> <li>It is carried out in our own laboratories, in research laboratories, or in partnership with the industry.</li> </ul> |

## 6. Learning outcomes <sup>11</sup> acquired through practical work in accordance with the mission

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Knowledge                   | <ul style="list-style-type: none"> <li>C1. The student/graduate knows research methods, techniques and paradigms</li> <li>C7. The student/graduate knows the principles of professional communication</li> <li>C8. The student/graduate knows the terminology and conventions of technical communication</li> <li>C11. The student/graduate knows communication technologies and protocols</li> </ul>                       |
| Skills                      | <ul style="list-style-type: none"> <li>A7. The student/graduate presents ideas and results in academic/professional contexts</li> <li>A8. The student/graduate explains complex concepts for different audiences</li> <li>A9. The student/graduate applies complementary approaches in research projects</li> <li>A11. The student/graduate selects and applies communication methods appropriate to the context</li> </ul> |
| Responsibility and autonomy | <ul style="list-style-type: none"> <li>RA1 The student/graduate independently manages a research process and critically evaluates the results</li> <li>RA4 The student/graduate ensures the correctness and relevance of the conclusions drawn</li> <li>RA8 The student/graduate adapts to various professional communication contexts</li> </ul>                                                                           |

**7. Objectives of the discipline** (related to the learning outcomes presented at point 6)

- Developing the student's research skills
- Identifying and correctly presenting the previously chosen topic
- Evaluating the existing techniques in the state of the art and proposing further developments
- Identifying points where specific innovative solutions can be found
- Knowing the principles of writing a research report
- Management of a research project

**8. Topics and activities for practical work**<sup>12</sup>**8.1** Topics for practical work

Evaluating the existing techniques in the current state of the art and proposing further developments

**8.2** Type of activities

Scientific analysis and writing, implementation, presentation, management of research activity carried out through: - partially assisted activities

**8.3** Duration

154

**9. Student's assignments**<sup>13</sup>**10. Evaluation**

| <b>10.1</b> Evaluation criteria                                                                                                                                                                             | <b>10.2</b> Evaluation methods | <b>10.3</b> Share of the final grade |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------|
| Knowledge of specialized concepts and terms                                                                                                                                                                 | Examination by the coordinator | 1/3                                  |
| Research methodology development                                                                                                                                                                            | Examination by the coordinator | 1/3                                  |
| Ability to make an analysis on the chosen topic. The manner in which the research report is written.                                                                                                        | Examination by the coordinator | 1/3                                  |
| <b>10.4</b> Minimum performance standard (minimum amount of knowledge necessary to pass the discipline and the way in which this knowledge is verified <sup>14</sup> )                                      |                                |                                      |
| <ul style="list-style-type: none"> <li>• The student is able to solve a research problem and write a research report based on a process of documentation and individual development of solutions</li> </ul> |                                |                                      |

**Date of approval in the Faculty Council**<sup>15</sup>

07.10.2025

**Dean**  
 (signature)
**Date of completion**

25.09.2025

**Head of Department**  
 (signature)

**Coordinator of applied activities**  
 (signature)