

# SYLLABUS <sup>1</sup>

## 1. Information about the program

1.1 Higher education institution	Politehnica University of Timisoara
1.2 Faculty <sup>2</sup> / Department <sup>3</sup>	Faculty of Automation and Computing / Department of Computer and Information Technology
1.3 Chair	—
1.4 Field of study (name/code <sup>4</sup> )	Computer and Information Technology
1.5 Study cycle	Master
1.6 Study program (name/code/qualification)	Master of Cloud Computing and Internet of Things

## 2. Information about discipline

2.1 Name of discipline	Research Topics in CC and IoT						
2.2 Coordinator (holder) of course activities	Prof. Dr. habil. Eng. Mihai V. Micea						
2.3 Coordinator (holder) of applied activities <sup>5</sup>	N/A						
2.4 Year of study <sup>6</sup>	1	2.5 Semester	1	2.6 Type of evaluation	E	2.7 Type of discipline	Di

## 3. Total estimated time (direct activities (fully assisted), partially assisted activities and unassisted activities <sup>7</sup>)

3.1 Number of hours fully assisted/week	2 ,of which:	3.2 course	2	3.3 seminar/laboratory/project	
3.1* Total number of hours fully assisted/sem.	28 ,of which:	3.2* course	28	3.3* seminar/laboratory/project	
3.4 Number of hours partially assisted/week	12 ,of which:	3.5 project, research	12	3.6 training	3.7 hours designing M.A. dizertation
3.4* Number of hours partially assisted/ semester	168 ,of which:	3.5* project, research	168	3.6* training	3.7* hours designing M.A. dizertation
3.8 Number of hours of unassisted activities/ week	2.5 ,of which:	Additional documentation in the library, on specialized electronic platforms, and on the field			0.5
		Study using a manual, course materials, bibliography and lecture notes			1
		Preparation of seminars/ laboratories, homework, assignments, portfolios, and essays			1
3.8* Total number of hours of unassisted activities/ semester	35 ,of which:	Additional documentation in the library, on specialized electronic platforms, and on the field			7
		Study using a manual, course materials, bibliography and lecture notes			14
		Preparation of seminars/ laboratories, homework, assignments, portfolios, and essays			14
3.9 Total hrs./week <sup>8</sup>	16.5				
3.9* Total hrs./semester	231				
3.10 No. of credits	6				

## 4. Prerequisites (where applicable)

4.1 Curriculum	•
4.2 Competencies	•

## 5. Conditions (where applicable)

<sup>1</sup> The form corresponds to the Syllabus promoted by OMECTS 5703/18.12.2011 (Annex 3), updated based on the Specific Standards ARACIS of December 2016.

<sup>2</sup> The name of the faculty which manages the educational curriculum to which the discipline belongs

<sup>3</sup> The name of the department entrusted with the discipline, and to which the course coordinator/holder belongs.

<sup>4</sup> Fill in the code provided in HG no. 376/18.05.2016 or in HG similars annually updated.

<sup>5</sup> The applied activities refer to: seminar (S) / laboratory (L) / project (P) / practice/training (Pr).

<sup>6</sup> The year of study to which the discipline is provided in the curriculum .

<sup>7</sup> Within UPT, the number of hours from 3.1\*, 3.2\*,...,3.9\* are obtained by multiplying by 14 (weeks) the number of hours from 3.1, 3.2,..., 3.9. The information from 3.1, 3.4 și 3.8 are keys of verification used by ARACIS under the form: (3.1)+(3.4) ≥ 28 hrs./week and (3.9) ≤ 40 hrs./week.

<sup>8</sup> The total number of hours/week is obtained by summing up the number of hours from 3.1, 3.4 și 3.8.



## Bibliography <sup>9</sup>

- State of the art journal and conference papers published recently in the field of advanced cloud computing and IoT. IEEE and ACM online digital libraries, available online.
- P. Perry, "Research Tips of How to Get a PhD", Dublin City University, Ireland, 1995, available online.
- J.W. Chinneck, "How to Organize your Thesis", Carleton University, Ottawa, Canada, 1999, available online.
- M.V. Micea, "Ghid de redactare a lucrării de diploma", Politehnica University of Timisoara, 2009, available online.
- M.V. Micea, "Ghid de redactare a prezentării proiectului de diploma", Politehnica University of Timisoara, 2012, available online.
- M.V. Micea, "Intellectual Property: Course Support", Politehnica University of Timisoara, 2012, available online.
- A.J. Smith, "The Task of the Referee", IEEE, 1990, available online.

## 8.2 Applied activities <sup>10</sup>

Number of hours

Teaching methods

8.2 Applied activities <sup>10</sup>	Number of hours	Teaching methods

## Bibliography <sup>11</sup>

## 9. Coroboration of the content of the discipline with the expectations of the main representatives of the epistemic community, professional associations and employers in the field afferent to the program

- This course provides fundamental knowledge and skills, needed for scientific research and publishing in the fields of cloud computing and Internet of Things. The content of the course has been developed based on similar courses at high profile universities in the world (Harvard University, Berkeley University, University of Connecticut, etc.), as well as on the partnership, common projects and direct discussions with the research departments of important companies in the automotive, telecommunication and multimedia fields in Timisoara (Nokia, Continental, Hella, Movidius/Intel, etc.).

## 10. Evaluation

Type of activity	10.1 Evaluation criteria <sup>12</sup>	10.2 Evaluation methods	10.3 Share of the final grade
10.4 Course	<ul style="list-style-type: none"> <li>• A review report submitted by each student on a selected scientific manuscript in the field of advanced cloud computing and IoT;</li> <li>• Attendance at course lectures and participation at discussions on the research topics in the field.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluation of the review report submitted by each student;</li> <li>• Attendance at course lectures is counted on as a bonus.</li> </ul>	100%
10.5 Applied activities	<b>S:</b>		
	<b>L:</b>		
	<b>P:</b>		

<sup>9</sup> At least one title must belong to the department staff teaching the discipline, and at least one title must refer to a relevant work for the discipline, a national and international work that can be found in the UPT Library.

<sup>10</sup> The types of applied activities are those mentioned in 5. If the discipline contains more types of applied activities then they are marked, consecutively, in the table below. The type of activity will be marked distinctively under the form: „Seminar:”, „Laboratory:”, „Project:” and/or „Practice/Training:”.

<sup>11</sup> At least one title must belong to the staff teaching the discipline.

<sup>12</sup> The Syllabus must contain the evaluation method of the discipline, specifying the criteria, the methods and the forms of evaluation, as well as mentioning the share attached to these within the final mark. The evaluation criteria must correspond to all activities stipulated in the curriculum (course, seminar, laboratory, project), as well as to the methods of continuous assessment (homework, essays etc.)

	<b>Pr:</b>		
	<b>Tc-R<sup>13</sup>:</b>		
<b>10.6</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>• Knowledge of the main types of scientific publication, of the requirements and the main steps involved in the research and publication of scientific papers;</li> <li>• Knowledge of the main topics and issues regarding intellectual property, professional ethics and scientific paper review process.</li> </ul>			

**Date of completion**

**Course coordinator  
(signature)**

**Coordinator of applied activities  
(signature)**

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**Head of Department  
(signature)**

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

**Dean  
(signature)**

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<sup>13</sup> Tc-R= Homework-Reports

<sup>14</sup> For this point turn to "Ghidului de completare a Fișei disciplinei" found at: [http://univagora.ro/m/filer\\_public/2012/10/21/ghid\\_de\\_completare\\_fisa\\_disciplinei.pdf](http://univagora.ro/m/filer_public/2012/10/21/ghid_de_completare_fisa_disciplinei.pdf)

<sup>15</sup> The approval is preceded by discussing the study program's board's point of view with redgards to the syllabus.