



Europass curriculum vitae

Personal information

Surnames / First name

Ruxandra - Georgiana ȚAPU

Address

Splaiul Independenței Nr. 313, Sector 6, Bucharest, Romania

Telephone

004021402 2218

E-mail

Nationality

Date of birth

Gender

Work experience

Dates

2021- present

Occupation or position held

Professor

Main activities and responsibilities

Teaching courses and laboratories for: "Machine Learning Fundamentals", "Multimedia systems", "Signals and systems", "Video coding and compression systems" disciplines.

Name and address of employer

Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest, Romania.

Type of business or sector

Public higher education and research establishment

Dates

2017 - 2021

Occupation or position held

Associate Professor

Main activities and responsibilities

Teaching courses and laboratories for: "Multimedia systems", "Signals and systems", "Multiplex Techniques and Transmission Systems", "Video coding and compression systems" disciplines.

Name and address of employer

Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest, Romania.

Type of business or sector

Public higher education and research establishment

Dates

2013 – 2017

Occupation or position held

Lecturer

Main activities and responsibilities

Teaching courses and laboratories for: "Multimedia systems", "Signals and systems", "Multiplex Techniques and Transmission Systems", "Video coding and compression systems" disciplines.

Name and address of employer

Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest, Romania.

Type of business or sector

Public higher education and research establishment

Dates

2008 – 2013

Occupation or position held

Assistant professor

Main activities and responsibilities

Teaching courses and laboratories for: "Multimedia systems", "Signals and systems", "Multiplex Techniques and Transmission Systems", "Video coding and compression systems" disciplines.

Name and address of employer

Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest, Romania.

Type of business or sector

Public higher education and research establishment

Dates

01.03.2008 – 30.05.2008

Occupation or position held

Internship

Main activities and responsibilities

Graduation Project – "Performance study of a heterogeneous architecture used by nano-satellites"

Name and address of employer

Institute National of Telecommunications and CNES (Centre National des Etudes Spatiales), France

Type of business or sector	Public higher education and research establishment
Dates	01.07.07 – 30.09.07
Occupation or position held	IT Specialist
Main activities and responsibilities	Web designer / Network administrator;
Name and address of employer	ARTHUR SEALAND, Gran de Garcia, nr. 34, 1 ^o , 2a, Barcelona, Spain
Type of business or sector	Company specialized in designing and manufacturing furniture for hotels industry
Education and training	
Dates	2014 – 2015
Title of qualification awarded	Postdoctoral researcher
Principal subjects/Occupational skills covered	Postdoctoral thesis entitled: "A computer vision system dedicated to visually impaired users"
Name and type of organization providing education and training	Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest, Romania.
Level in national or international classification	Public higher education and research establishment
Dates	2009 – 2012
Title of qualification awarded	PhD in Computer Science, Telecommunications and Electronics
Principal subjects/Occupational skills covered	PhD Thesis Title: "Segmentation and structuring of video documents for indexing applications" with the distinction " Très honorable "
Name and type of organization providing education and training	PhD School of Computer Science, Telecommunications and Electronics of Paris (EDITE), University "Pierre et Marie Curie" Paris, France, carried out on the basis of a joint supervision agreement with Institute Mines-Télécom/Télécom SudParis, Evry, France
Level in national or international classification	Public higher education and research establishment (ISCED8)
Dates	2008 – 2011
Title of qualification awarded	PhD in Electronics and Telecommunications
Principal subjects/Occupational skills covered	PhD Thesis Title: " <i>Analiza și interpretarea semantică a informației video pentru indexarea colaborativă</i> " ("Semantic analysis and interpretation of video information for collaborative indexing")
Name and type of organisation providing education and training	Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest, Romania.
Level in national or international classification	Public higher education and research establishment (ISCED8)
Dates	2003 – 2008
Title of qualification awarded	Engineer in Electronics and Telecommunications - Valedictorian graduated with 10/10 and 10/10 on the diploma project
Principal subjects/Occupational skills covered	Electronics and telecommunications; Multimedia systems; Computer science; Information technology
Name and type of organisation providing education and training	Faculty of Electronics, Telecommunications and Information Technology, University "Politehnica" of Bucharest, Romania.
Level in national or international classification	Public higher education and research establishment (ISCED8)
Dates	01.09.2008 – 20.11.2008
Title of qualification awarded	PHP/MySQL Programmer certification
Principal subjects/Occupational skills covered	PHP programming and web design
Name and type of organisation providing education and training	InfoAcademy, Romania

Dates 01.03.2008 – 01.06.2008
 Title of qualification awarded **Beneficiary of an Erasmus internship grant**
 Principal subjects/Occupational skills covered Diploma project – «Performance study of a heterogeneous architecture used by nano-satellites»
 Name and type of organization providing education and training IT / TELECOM and Management SudParis
 Level in national or international classification International Education Program

Dates 01.07.2007 – 30.09.2007
 Title of qualification awarded **Beneficiary of “Leonardo da Vinci” internship grant – Europass certification**
 Principal subjects/Occupational skills covered Web Designer in Macromedia Dreamweaver and Flash, Image processing in Adobe Photoshop
 Name and type of organization providing education and training University “Politehnica” of Bucharest in the framework of “Leonardo da Vinci” program with the title “Study regarding the influence of the industrial design on the performances of products”
 Level in national or international classification International Mobility Program

Personal skills and competences

Mother tongue

Other languages

Self-assessment

European level (*)

English

French

Spanish

Romanian

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C1	C1	C1
C1	C1	C1	C1	B2
B2	B2	B1	B1	B1

Computer skills and competences

- Programming languages: Python, C++, Java, Matlab, PHP, MySQL, C#;
- Libraries for image, 3D graphics processing and neural networks: OpenCV, OpenGL, PCL, Keras, Tensorflow, Caffe, Torch;
- Dedicated software for image and video processing: Adobe Photoshop, Camtasia, CorelDraw, AdobePremier;
- Operating systems: Windows/Linux;
- MSOffice, OpenOffice.

Organizational skills and competences

- Flexibility, quick adapting to the work environment, teamwork experience, communicational abilities, and capacity to adapt to new situations.
- Capacity to clearly communicate technical data to non technical colleagues.
- Organized, goal and detailed oriented
- Able to work under pressure to meet deadlines

Technical skills and competences

- Creative thinking to come up with innovative designs
- Up to date with the latest communication systems.

Other skills and competences

- Reviewer for the following journals: IEEE Access (IF 4.098), Multimedia Tools and Applications; (IF 2.101); Computer Vision and Image Understanding (IF 2.134); Sensors (IF 3.031); EURASIP Journal on Image and Video Processing (IF 1.066); IEEE Embedded Systems Letters (IF 0.58)
- IEEE and IEEE consumers electronics member
- Young researcher award at the E-Health and Bioengineering conference in November 2013 and November 2015.
- 7 UEFISCDI Awards for my Q1/Q2 journal papers
- DELF Certificate (Diplôme d'Etudes en Langue Française) in 2011 – level B2

**Research projects
SMART-VIEW**

Project coordinator: UEFISCDI Youth Team (TE) Project - "Sistem multimodal de îmbunătățire a accesibilității la documente multimedia dedicat persoanelor cu deficiențe de auz – SMART-VIEW", PN-III-P1-1.1-TE-2019-0420, Coordinator: University “Politehnica” of Bucharest, 2020 – 2022.

DEEP-HEAR	Project coordinator: UEFISCDI Human Resources (MCD) – „Automatic caption synchronization and positioning”, PN-III-P1-1.1-MCD-2019-0157, Coordonator Universitatea Politehnica Bucuresti.
SEE	Project coordinator: UEFISCDI Youth Team (TE) Project – “Intelligent outdoor navigation system dedicated to visually impaired people”, PN-II-RU-TE-2014-4-0202, Coordinator: University “Politehnica” of Bucharest, Romania, 2015 – 2017, (122 000 euro).
DEEP-SEE	Project coordinator: Excellence Research Grants Program, UPB – GEX. Identifier: UPB–EXCELENȚĂ–2017 Research project: „Autonomous obstacle detection and recognitions system based on deep convolutional neural networks dedicated to visually impaired people”, Nr. 40/25.09.2017.
SubTil	Research responsible for partner (Telecom SudParis): "Subtil - Amélioration automatisée des services d'accessibilité en multimédia" - collaborative research project supported by the French research program, Fonds National pour la société Numérique - Programme d'Investissement d'Avenir, Coordinated by the France National Television, 2017 -2019.
ALICE	Research responsible for partner (Telecom SudParis): “ALICE (Assistance for Better Mobility and Improved Cognition of Elderly Blind and Visually Impaired)” - collaborative research project supported by the European AAL (Ambient Assisted Living) program - AAL-2011-4-099, Coordinator: Comland d.o.o. IT Solutions Development, 2012 - 2015.
UPB-GEX	Researcher: Excellence Research Grants Program, UPB – GEX. Identifier: UPB–EXCELENȚĂ–2016 Research project: „Autonomous system with cognitive abilities designed to assist the autonomous displacement of intelligent vehicles”, Nr. 97/26.09.2016, 2016 – 2017.
3D-LIVE	Researcher: “3D-LIVE” - collaborative research project supported by the French research program, FUI7 (Fonds Unique Interministériel), “3D-LIVE”, 2009-2012.
GaVPro	Researcher: “GaVPro Developing a Galileo Vector Processing Receiver for Difficult Signal Conditions”, International research contract funded by ESA, Nr: 4000114741/15/NL/ MM_EGEP ID 89.29, Coordinator: University “Politehnica” of Bucharest, Romania, 2015 - 2016.
AlgoFab	Researcher: „AlgoFab - Ecosystème de Services pour la Valorisation d'Algorithmes de Traitement de Contenus Multimédia”, - research project supported by the French program, Investissements d'Avenir, Développement de l'Economie Numérique, Informatique en nuage, 2016-2017.
Media 4D	Researcher: „Media4DPlayer - Accessible Media Player for All”, - collaborative research project supported by the French research program, FUI7 (Fonds Unique Interministériel), Coordinated by the France National Television, 2014 – 2016.
Smart City+	Researcher: „Smart City + - Plateforme numérique de services d'hyperproximité”, - research project supported by the European Union through the Competitiveness and Innovation program, 2013 - 2014.
InnoRESEARCH	Postdoctoral researcher: POSDRU research project “InnoRESEARCH - Burse doctorale si postdoctorale in sprijinul inovării si competitivității in cercetare”, POSDRU/159/1.5/S/132395, 2014-2015.
MultiXE/MNEMOS	Researcher: within the UBIMEDIA joint laboratory established between Institut Mines-Télécom France and Alcatel Lucent Bell Labs France, within the project „ MultiXE/MNEMOS - Multimédia numérique enrichi multi-modal optimisé et sémantique”, 2009-2011.
PNCDOI	Researcher: PNCDOI National Research Contract – “Expertiza store tehnico (stare metal) a recipientelor scadente ISCIR din cadrul CET Bucuresti Vest in vederea autorizarii functionarii de către ISCIR”, Contract number PNCDOI - I2/08.II.2011, 2011-2013.
Promise	Class A expert: “Sistem integrat de programe de masterat în domeniul ingineriei de sunet, imagine și al aplicațiilor multimedia” (“Integrated system of masters programs in the field of sound, image and multimedia applications”), FSE - European Structural, ID61178, Coordinator: University “Politehnica” of Bucharest, Romania, 2012 – 2013.

Research activity

- **16 scientific articles** published in ISI indexed journals (of which 9 are Q1/Q2 indexed) and **33 scientific articles** published in ISI indexed conferences.
- Cumulative impact factor for publications – **42,188**.
- **6 scientific articles** published at conferences indexed in international databases.
- **5 books** published in CNCSIS recognized publishers and 1 book chapter published at international publishers.
- Managing **5 national / international research contracts**.
- Over **1300 citations** according to Google Scholar, with a HIRSCH Index of 13.

Driving license

B Category