

## CURRICULUM VITAE

**Daniela COLȚUC**  
**Professor, University Politehnica of Bucharest**

Full name: COLȚUC Daniela

Date/place of birth: May 29, 1957, Bucharest, Romania

UEFISCDI ID (UEF-ID): U-1700-033E-5418

### EDUCATION:

- 1998: Ph.D. at University Politehnica of Bucharest (UPB), thesis “Satellite Image Processing Methods”.
- 1981: Engineer at UPB, Faculty of Electronics and Telecommunications.

### POSITIONS:

- 2017–present: professor with Faculty of Electronics, Telecommunications and Information Technology (ETTI), UPB.
- 2005–2017: associate professor with ETTI, UPB.
- 1999–2005 : lecturer with ETTI, UPB.
- 1991–1999: researcher with the National Centre for Telecommunications and Spatial Teleinformatics, UPB.
- 1982-1991: researcher with the Research Centre for Automatics in Bucharest.

### ACTIVITY:

#### Teaching:

- **At present, at UPB and in France:** Theory of Information Communication (BSc UPB), Computational imaging (master UPB), Image and Video Compression (master, Ecole Supérieure d’Ingénieurs Chimie Physique Electronique – CPE Lyon, France).
- **In the past, at UPB and in France:** Information Bio-engineering (master UPB), Detection and Estimation in Information Processing (BSc UPB), Computing Systems Architectures (BSc UPB), Analogical Electronics (BSc UPB), Wavelet Transform in Image Compression (master CPE-Lyon), Traitement du Signal (Ecole Nationale Supérieure d’Ingénieurs Electriciens de Grenoble, France), Motion Analysis in Video Sequences (master CPE-Lyon), Print-and-Scan Channels (master, Univ. Jean Monnet de Saint Etienne, France).

**Research.** Background: Theory of information applied to digital image analysis. Current interest: computational imaging. Other interests: image compression, multi-channel image processing, multiresolution representation, texture analysis, print-and-scan noise, compressive sensing.

Recent projects as principal investigator or partner responsible:

- *Multimodal Environmental Exploration Systems – Novel Technologies*, H2020 Marie Skłodowska Curie Actions, 2020-20124, 658.774 euro.
- *Optical Compressive Sensing for Space Applications*, European Space Agency, 2016-2017, 25.000 euro.
- *Compressive THz Imaging and Hadamard Spectroscopy for Space Applications*, Romanian Space Agency, 2012-2015, 2.100.000 lei.
- *An Information Theory Based Approach to Feature Extraction from Digital Images*, CNCSIS IDEI, 2009-2011, 800.000 lei.

**Publications.** 73 articles (74% in ISI journals or proceedings), 2 books at the national editing house Electra (single author) and 3 book chapters at editing houses abroad (Springer-Verlag, IGI Global, InTech).

Most important recent publications:

- Crisan, A. M., Martian, A., Cacoveanu, R., & Coltuc, D. (2020). Distance estimation in OFDM inter-satellite links. *Measurement*, 154, 107479.
- Coluccia, G., Latri, C., Guzzi, D., Magli, E., Nardino, V., Palombi, L., ... & Coltuc, D. (2019). Optical Compressive Imaging Technologies for Space Big Data. *IEEE Transactions on Big Data*. Early acces.
- Crisan, A. M., Martian, A., Cacoveanu, R., & Coltuc, D. (2019). Angle-of-Arrival Estimation in Formation Flying Satellites: Concept and Demonstration. *IEEE Access*, 7, 114116-114130. WOS:000483022100060. IF: 4.09
- Damian, C., Garoi, F., Udrea, C., & Coltuc, D. (2019). The Evaluation of Single Pixel Camera Resolution. *IEEE Transactions on Circuits and Systems for Video Technology*. Early Access. IF: 4.04
- Garoi, F., Udrea, C., Damian, C., Prepelita, P., & Coltuc, D. (2019). THz Laser Beam Profiling by Homogeneous Photodoping of High Resistivity Silicon in a Compact Single-Pixel Detection Setup. *IEEE Transactions on Terahertz Science and Technology*, 9(2), 200-208. WOS:000460746900011. IF: 2.95
- Coltuc, D., Datcu, M., & Coltuc, D. (2018). On the use of normalized compression distances for image similarity detection. *Entropy*, 20(2), 99. WOS:000426793900022. IF: 2.3
- Damian, C., Sima, A., Vasile, T., & Coltuc, D. (2017). Microscanning in Hadamard spectroscopy. *Applied optics*, 56(18), 5211-5215.
- Vasile, T., Damian, V., Coltuc, D., & Petrovici, M. (2016). Single pixel sensing for THz laser beam profiler based on Hadamard transform. *Optics & Laser Technology*, 79, 173-178. WOS: 370457200027. IF: 2.1

**Other activities:**

- 2005 – 2009 (part time) Visiting professor at Univ. Jean Monnet de Saint Etienne, France.
- 2000 (3 months): Visiting researcher at Univ. Lyon 2, France
- 1998 – 1999: Postdoctoral stage (8 months) and visiting researcher (4 months) with LAMII (Laboratoire d'Automatique et Microinformatique Industrielle), ESIA (Ecole Supérieure d'Ingénieurs d'Annecy), France.
- 1996 (3 months): Visiting researcher at CPE-Lyon, France

**Spoken languages:** English and French.