# EUROPEAN CURRICULUM VITAE FORMAT

## PERSONAL INFORMATION

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|---|---|
| Name | **PROF. CARLA FABIANA CASETTI** |
| Address | , |
| Telephone | |
| E-mail | |
| Website | |
| Nationality | |
| Date of birth | |

## GENERAL RESEARCH INTERESTS

Mobile networks and services, Virtual radio access networks, Machine Learning-based services and applications, Network support to machine learning, Resource allocation optimization, Modeling & performance evaluation, Algorithms

## BIBLIOMETRIC SUMMARY DATA

| | |
|---|---|
| • Total international publications | 400 |
| • Total citations | 11900+ source scholar.google.com |
| • i10-index | 216 source scholar.google.com |
| • H-index | 56 source scholar.google.com |

## EDUCATION AND TRAINING

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|---|---|
| 1996-2000 | PhD. in Electronics and Communications Engineering Politecnico di Torino, Italy |
| 1998-2000 | Visiting PhD Scholar University of California at San Diego (UCSD), CA, USA |
| 1989-1996 | MSc. In Electronics Engineering University of Florence, Italy |
| 06-12/1996 | MSc. Thesis on Secure Wireless Communications University of Massachusetts at Amherst (UMASS), MA, USA |

## PRINCIPAL POSITIONS

| | |
|---|---|
| • 2018-present | Full Professor |
| • Name and address of employer | Politecnico di Torino, Italy |
| • Occupation or position held | Rector's Delegate for Alumni and Career Orientation |
| • Main activities and responsibilities | Leader of the Advanced Wireless Experience at the Department of Electronics and Telecommunications, Politecnico di Torino |
| | Member of the PhD Board in Electrical, Electronic and Communications Engineering |
| | |
| • 2006-2018 | Associate Professor |
| • Name and address of employer | Politecnico di Torino, Italy |
| • Occupation or position held | Leader of the Research group on Wireless and Mobile Networks |
| • Main activities and responsibilities | Coordinator of the MSc Program in ICT for Smart Societies |
| | Coordinator of the MSc Program in Computer and Communication Network |
| | |
| • 2002-2006 | Assistant Professor |
| • Name and address of employer | Politecnico di Torino, Italy |
| • Occupation or position held | Research on wireless networks, student advising, teaching |
| • Main activities and responsibilities | |

## ADDITIONAL POSITIONS

| | |
|---|---|
| • Since 2023 | Associate Editor in Chief of the IEEE Transactions on Network Science and Engineering |
| • Since 2021 | Member of the IEEE ComSoc's Emerging Technologies Committee |
| • Since 2019 | Editor in Chief of Computer Communications |
| • Since 2016 | Member of the Scientific Council of FBK (Bruno Kessler Foundation) Trento, Italy |
| • Since 2014 | Member of the French National Research Agency PERP on 5G Technologies |
| • 2022 | Panel Member of the Project Evaluation Committee of the Academy of Finland |
| • 2021-2022 | Member of the Networld2020 Expert Group |
| • 2021 | Chair of the Evaluation Committee for the Telecommunication and Networks Theme Inria, France |

## VISITING POSITIONS

| | |
|---|---|
| • July 2021 and 2022 | Visiting Professor |
| • Name and address of employer | Technische Universität Berlin (TUB), Germany |
| • Main activities and responsibilities | Research on Virtual Edge and project proposal preparation |
| | |
| • Summer 2012 & 2016 | Visiting Professor |
| • Name and address of employer | Monash University, Melbourne, Australia |
| • Main activities and responsibilities | Research on SDN and full-duplex communications |
| | |
| • 2000-2003 | Research Fellow |
| • Name and address of employer | University of California at San Diego (UCSD), CA, USA |
| • Main activities and responsibilities | Research on wireless distributed networks |

## TEACHING

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|---|---|
| • Current | Mobile sensor networks; 5G; cellular networks; virtual services |
| • Past | Since 2000, 2 graduate courses on Mobile sensor networks and Mobile networks |

## GRANTS & PROJECTS

| | |
|---|---|
| • 2023-2036 | PNRR PE14 RESTART – Spoke 4 |
| Name of the project | SUPER (Programmable Networks) |
| Role | Coordinator |
| Grant | 4600000.00 |

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|--------------------------|---------------------------------------------------------------|
| • 2023-2025              | EU SNS CENTRIC Project                                        |
| Name of the project      | CENTRIC                                                       |
| Role                     | Lead PI                                                       |
| Grant                    | 433000.00                                                     |

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|--------------------------|---------------------------------------------------------------|
| • 2023-2025              | EU SNS CENTRIC Project                                        |
| Name of the project      | Research contract funded by TIM                              |
| Role                     | Lead PI                                                       |
| Grant                    | 500000.00                                                     |

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|--------------------------|---------------------------------------------------------------|
| • 2020-2021              |                                                               |
| Name of the project      | *Sviluppo Open RAN Controller*                               |
| Role                     | PI                                                            |
| • Total grant            | 60000€                                                        |

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|--------------------------|---------------------------------------------------------------|
| • 2021                   | Research contract funded by Stellantis-CRF                    |
| • Name of the project    | ECCO: Edge-Cloud COntinuum for connected vehicles            |
| • Description            | Lead PI                                                       |
| • Total grant            | 40000€                                                        |

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|--------------------------|---------------------------------------------------------------|
| • 2020-2022              | EU H2020 RIA project                                          |
| • Name of the project    | RAINBOW                                                       |
| • Description            | Lead PI                                                       |
| • Total grant            | 211250,00€                                                    |

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|--------------------------|---------------------------------------------------------------|
| • 2020-2023              | EU H2020 MSCA-ITN project                                     |
| • Name of the project    | SEMANTIC                                                      |
| • Description            | PI                                                            |
| • Total grant            | 261500,00€                                                    |

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|--------------------------|------------------------------------------------------------------------------|
| • 2020-2023              | Research contract funded by TIM                                              |
| • Name of the project    | Performance analysis of Edge Mobile Network solutions for automotive applications |
| • Description            | Lead PI                                                                      |
| • Total grant            | 30000,00€                                                                    |

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|--------------------------|---------------------------------------------------------------|
| • 2019-2021              | EU H2020 5G-PPP project                                       |
| • Name of the project    | 5Growth                                                       |
| • Description            | Lead PI                                                       |
| • Total grant            | 450375,00€                                                    |

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|--------------------------|---------------------------------------------------------------|
| • 2017-2019              | EU H2020 5G-PPP project                                       |
| • Name of the project    | 5G-TRANSFORMER                                                |
| • Description            | Lead PI                                                       |
| • Total grant            | 283750,00€                                                    |

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| • 2016-2019              | EU H2020 RIA project                                          |
| • Name of the project    | I-REACT                                                       |
| • Description            | Co-PI                                                         |
| • Total grant            | 232450,00€                                                    |

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| • 2015-2017              | EU H2020 RIA5G-PPP project                                    |
| • Name of the project    | 5G-Crosshaul                                                  |
| • Description            | Co-PI                                                         |
| • Total grant            | 161812,00€                                                    |

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| • 2016-2018              | Research contract funded by CRT                              |
| • Name of the project    | MIMOSE                                                        |

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|---|---|
| • Description | Lead PI |
| • Total grant | 150000,00€ |
| | |
| • 2017 & 2019 | Research contract funded by FCA-CRF |
| • Name of the project | DiVE - SAVE |
| • Description | Lead PI |
| • Total grant | 90000,00€ |
| | |
| • 2017-2018 | Research contract funded by TIM |
| • Name of the project | Multi-access Edge Computing |
| • Description | PI |
| • Total grant | 50000,00€ |

**SELECTED PUBLICATIONS AND RESEARCH REPORTS**

(**most relevant in the last 3 years**, out of more than **400** publications)

- 2023. An ML-aided Reinforcement Learning Approach for Challenging Vehicle Maneuvers. In IEEE TRANSACTIONS ON INTELLIGENT VEHICLES Selvaraj, Dinesh Cyril; Hegde, Shailesh; Amati, Nicola; Deflorio, Francesco; Chiasserini, Carla Fabiana
- 2023. Efficient Distributed DNNs in the Mobile-edge-cloud Continuum. In IEEE/ACM TRANSACTIONS ON NETWORKING Malandrino, F.; Chiasserini, Carla Fabiana; Di Giacomo Giuseppe
- 2023. Edge-powered Assisted Driving For Connected Cars. DOI:10.1109/TMC.2021.3084291. In IEEE TRANSACTIONS ON MOBILE COMPUTING - ISSN:1536-1233 Malandrino, F.; Chiasserini, Carla Fabiana; Dell'Aera, Gian Michele
- 2022. *A Context-aware Radio Resource Management in Heterogeneous Virtual RANs. DOI:10.1109/TCCN.2021.3115098. pp.321-334. In IEEE TRANSACTIONS ON COGNITIVE COMMUNICATIONS AND NETWORKING - ISSN:2332-7731 vol. 8 (1)* Tripathi, Sharda; Puligheddu, Corrado; Chiasserini, Carla Fabiana; Mungari, Federico
- 2021. Federated Learning at the Network Edge: When Not All Nodes are Created Equal. pp.68-73. In IEEE COMMUNICATIONS MAGAZINE - ISSN:0163-6804 vol. 59 (7) Malandrino, Francesco; Chiasserini, Carla Fabiana
- 2022. ML-driven Provisioning and Management of Vertical Services in Automated Cellular Networks. DOI:10.1109/TNSM.2022.3153087. In IEEE TRANSACTIONS ON NETWORK AND SERVICE MANAGEMENT - ISSN:1932-4537 Casetti, C.; Chiasserini, C. F.; et al.
- 2021. KPI Guarantees in Network Slicing. In IEEE-ACM TRANSACTIONS ON NETWORKING - ISSN:1063-6692 Martiın-Perez, J.; Malandrino, F.; Chiasserini, C. F.; Groshev, M.; Bernardos, C. J.
- 2021. MEdge-Chain: Leveraging Edge Computing and Blockchain for Efficient Medical Data Exchange. DOI:10.1109/JIOT.2021.3052910. pp.15762-15775. In IEEE INTERNET OF THINGS JOURNAL - ISSN:2327-4662 vol. 8 (21) Amr, Mohamed; Awad, Alaa; Samara, Lutfi; Erbad, Aiman; Chiasserini, Carla Fabiana; Guizani, Mohsen; et al.
- 2021. Automated Service Provisioning and Hierarchical SLA Management in 5G Systems. DOI:10.1109/TNSM.2021.3102890. pp.4669-4684. In IEEE TRANSACTIONS ON NETWORK AND SERVICE MANAGEMENT - ISSN:1932-4537 vol. 18 (4) Li, X.; Chiasserini, C. F.; Mangues-Bafalluy, J.; Baranda, J.; Landi, G.; Martini, B.; et al.
- 2021. Active Learning with Noisy Labelers for Improving Classification Accuracy of Connected Vehicles. DOI:10.1109/TVT.2021.3066210. pp.3059-3070. In IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY - ISSN:0018-9545 vol. 70 (4) Abdellatif, Alaa Awad Abdelhady; Chiasserini, Carla Fabiana; Malandrino, Francesco; Mohamed, Amr; et al.
- 2021. Dynamic VNF Placement, Resource Allocation and Traffic Routing in 5G . DOI:10.1016/j.comnet.2021.107830. In COMPUTER NETWORKS - ISSN:1389-1286 Golkarifarda, Morteza; Chiasserini, Carla Fabiana; et al.
- 2021. Characterizing Delay and Control Traffic of the Cellular MME with IoT Support. DOI:10.1109/TMC.2020.2964677. pp.1325-1336. In IEEE TRANSACTIONS ON MOBILE COMPUTING - ISSN:1536-1233 vol. 20 (4) Vitale, Christian; Chiasserini, Carla Fabiana; Malandrino, Francesco; Tadesse, Senay
- 2020. SSHealth: Toward Secure, Blockchain-enabled Healthcare Systems.

DOI:10.1109/MNET.011.1900553. pp.312-319. In IEEE NETWORK - ISSN:0890-8044 vol. 34 (4) Abdellatif, Alaa Awad Abdelhady; Al-Marridi, Abeer Z.; Mohamed, Amr; Erbad, Aiman; Chiasserini, Carla Fabiana

- 2020. Edge-Based Collision Avoidance for Vehicles and Vulnerable Users: An Architecture Based on MEC. DOI:10.1109/MVT.2019.2953770. pp.27-35. In IEEE VEHICULAR TECHNOLOGY MAGAZINE - ISSN:1556-6072 vol. 12 (15) Malinverno, Marco; Avino, Giuseppe; Casetti, Claudio Ettore; Chiasserini, Carla Fabiana; et al.
- 2019. Reducing Service Deployment Cost Through VNF Sharing. DOI:10.1109/TNET.2019.2945127. pp.2363-2376. In IEEE-ACM TRANSACTIONS ON NETWORKING - ISSN:1063-6692 vol. 27 (6) Malandrino, Francesco; Chiasserini, Carla Fabiana; Einziger, Gil; Scalosub, Gabriel
- 2019. An Optimization-enhanced MANO for Energy-efficient 5G Networks. DOI:10.1109/TNET.2019.2931038. pp.1756-1769. In IEEE-ACM TRANSACTIONS ON NETWORKING - ISSN:1063-6692 vol. 27 (4) Malandrino, Francesco; Chiasserini, Carla Fabiana; Casetti, Claudio; Landi, Giada; Capitani, Marco
- 2019. VNF Placement and Resource Allocation for the Support of Vertical Services in 5G Networks. DOI:10.1109/TNET.2018.2890631. pp.433-446. In IEEE-ACM TRANSACTIONS ON NETWORKING - ISSN:1063-6692 vol. 27 (1) Agarwal, Satyam; Malandrino, Francesco; Chiasserini, Carla Fabiana; De, Swades

## PERSONAL SKILLS AND COMPETENCES

### MOTHER TONGUE

### OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

- Reading skills
- Writing skills
- Verbal skills

- Reading skills
- Writing skills
- Verbal skills

### SOCIAL SKILLS AND COMPETENCES

*Living and working with other people, in multicultural environments, in positions where communication is important and situations where teamwork is essential.*

### ORGANISATIONAL SKILLS AND COMPETENCES

*Coordination and administration of people, projects and budgets; at work, in voluntary work.*

MEMBER OF THE TEAM GOVERNING POLITECNICO DI TORINO

RECTORS' DELEGATE AND VICE RECTOR FOR ALUMNI AND JOB ORINETATTION

MEMBER OF THE TEACHING BOARD IN ELECTRONICS, PHYSICS AND TELECOMMUNICATIONS OF POLITECNICO DI TORINO

Lead Principal Investigator for many projects

| **ADDITIONAL INFORMATION** | IEEE Fellow |
|---|---|
| | Senior Member of the ACM (Association for Computing Machinery) |
| | "Best Paper Award" at 6 international conferences |
| | Mention in the European Commission Innovation Radar, June 2020, for the work within EU projects. |
| | "N2Women: Stars in Computer Networking and Communications" |
| | Listed among the 100 most successful female scientists in Italy in the whole field of Science, Technology, Engineering and Mathematics (STEM) |

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

, 06.02.2023
**Carla Fabiana Chiasserini**
Signature

IEEE Fellow
Senior Member of the ACM (Association for Computing Machinery)
"Best Paper Award" at 6 international conferences