CANDIDATE: Floriano DE RANGO

CURRICULUM VITAE et STUDIORUM

FLORIANO DE RANGO

Cosenza, 10 Feb 2021

Signature:
Floriano DE RANGO

Short Biography

Floriano De Rango is Associate Prof. in Telecommunication and Networking technologies at DIMES Dept., University of Calabria from 2017. He received the degree in computer science engineering in October 2000, and a Ph.D. in electronics and communications engineering in January 2005, both at the University of Calabria, Italy.

From January 2000 to October 2000 he worked in the Telecom Research LAB C.S.E.L.T. in Turin as visiting scholar student.

From March 2004 to November 2004 he was visiting researcher at the University of California at Los Angeles (UCLA) under the supervision of Prof. Mario Gerla.

From November 2004 until September 2007 he has been a Research Fellow in the D.E.I.S. Department, University of Calabria.

He was recipient of Young Researcher Award in 2007. He served as reviewer and TPC member for many International Conferences such as IEEE VTC, ICC, WCNC, Globecom, Med Hoc Net, SPECTS, WirelessCOM, WinSys and reviewer for many journals such as IEEE Communication Letters, JSAC, IEEE Trans.on Vehicular Technology, Computer Communication, Eurasip JWCN, WINET etc. He served as Program Chairs and General Chairs of many conference such as Spects, SummerSim, Distributed Simulation and Real Time Applications (DS-RT), SimulTech, KTTO etc. He served as track chairs on Distributed Wireless Systems, Ad Hoc Networks and Wireless Communication in many conference such as Consumer Communication and Networking Conference (CCNC), Wireless Days, Spects, Globecom.

His interests include Internet of Things, Vehicular Ad Hoc Networks, Drones, Adaptive Wireless Networks, Satellite networks, IP QoS architectures, , Ad Hoc Networks and Pervasive Computing. He has co-authored more than 250 papers among International Journal and Conferences Proceedings. In 2019 he has been ranked in the top italian scientist (TIS) via academy data base where the most cited Italian scientists are recorded.

He founded 3 startup companies: Spintel srl, Thuderbit srl and FireFly srl working in the field of IoT applied to Home&Building Automation, Smart Cities and Public Ligthing. Spintel srl has been ranked in 2013 among the most promising startups by Intel in the Intel Business Challenge Europe (IBCE) competition.

In 2016 he got the national habilitation as Full Prof. in Telecommunication (Ing-Inf/03).

He is member of IEEE and ACM. He represents the local research unit of the Italian Group of Telecommunications and Information Theory (GTTI, Gruppo Nazionale Telecomunicazioni e Teoria dell'Informazione), he is member of the directive board of Italian Inter-University Consortium for the Telecommunications (CNIT, Consorzio Interuniversitario per le Telecomunicazioni).

Research Activities

- Internet of Things
- Vehicular Ad Hoc Networks
- Flying Ad Hoc Networks
- Advanced Satellite Networks for Multimedia Communications.
- Wireless Ad Hoc Networks.
- Sensor Networks.
- Adaptive Wireless Systems.
- Ultra Wide Band (UWB) Technologies.
- Channel Modeling in Wireless Environment.
- Security Architectures and Protocol over Wireless Networks.
- QoS Services and Architecture over Distributed and Centralized Wireless Systems

Biography

In October 2000 he got is *Master Degree Thesis cum laude* in Electrical and Computer Science Engineering at University of Calabria. During his thesis he spent *nine months at C.S.E.L.T* (Centro Studi e Laboratorio Telecomunicazioni) in Turin where he worked on *Access Network of Telecom Operator* gaining experience in the management of Network Access Server (NAS) and on the interworking and integration of multi-vendor and multiplatform infrastructures. During this period he worked also on security issues and on Authentication, Authorization and Accounting (AAA) architecture in order to offer differentiation and security at access network in Dial-up phase. His Master Degree thesis was titled "*Services Differentiation at IP level in Access Network through network management policies. Reliability, functionality and interoperability analysis on multi-vendor platforms*".

In 2001 he started his *Ph.D in Systems and Information Engineering at DEIS Dept.*, University of Calabria. He worked in this period on Wireless Systems and Mobile Ad Hoc Networks (MANETs). During this period he contributed in teaching activities as Senior Tutor of Telecommunication and Electrical Communication courses.

In March 2004 he went to *Los Angeles at UCLA University* where he spent 8 months at Network Research Lab. He worked on *routing protocols for MANETs* under the supervision of Prof. Mario Gerla. During this period he matured experience in the field of scalable routing strategies and on the position based routing for distributed systems.

In February 2005 he got his Ph.D with a thesis titled *"Hybrid Location Based Routing Protocols for Scalable Wireless Ad Hoc Networks with Group Motion"*. In his thesis a novel hybrid and scalable routing combining OLSR protocol in a short range communication and a geo-forwarding scheme for long distance has been proposed.

From November 2004 to September 2007 he worked at DEIS Dept. as *Research Fellow*. In this period he extended his research lines working on different fields such as Satellite Networks, energy saving techniques for Wireless Networks, Ultra Wideband Technology, security over WLAN and MANETs. He teached course in the same University and in particular: *Fundamentals of Telecommunications, Radiomobile Networks I, Radiomobile Networks II, IP Evolutions and Internetworking, Laboratory and Designing of Telecommunication Networks, Telecommunication Systems*.

He has been also involved in many professional activities and in particular he has been TPC member of many International Conferences such as IEEE VTC, ICC, WCNC, Globecom, Med Hoc Net, SPECTS, WirelessCOM, WinSys and reviewer in many journals such as *IEEE Communication Letters, JSAC, IEEE Trans.on Vehicular Technology, Computer Communication, Eurasip JWCN, WINET* etc. In September 2007 he become *Assistant Professor at DEIS Dept.*, University of Calabria, where he teaches Telecommunication Systems, Designing of Advance Cellular Networks and Radiomobile Networks II.

He was recipient of *Young Researcher Award* in 2007. He served as reviewer and TPC member for many International Conferences such as IEEE VTC, ICC, WCNC, Globecom, Med Hoc Net, SPECTS, WirelessCOM, WinSys and reviewer for many journals such as *IEEE Communication Letters*, *JSAC*, *IEEE Trans.on Vehicular Technology*, *Computer Communication*, *Eurasip JWCN*, WINET etc. He was recipient of *Young Researcher Award* in 2007 for a Project on Vehicular Ad Hoc Networks (VANETs) called *ATENA (Autoconfiguring inTelligent vEhicular Network for urban*

Area). His interests include Satellite networks, IP QoS architectures, Adaptive Wireless Networks, Ad Hoc Networks, Pervasive Computing and Internet of Things (IoT). He has been involved in the organization of many conferences in the following roles: Program Chair of *Ambysis Conference* in 2009, track chair in Mobile Ad Hoc Networks in *Wireless Telecommunications Symposium (WTS) 2011*, Program chair in *Simulation and Performance Evaluation in Telecommunication Systems (SPECTS) 2013-2014*, track-chair of the Wireless Networks track in *Wireless Days 2013*, vice-General Chair in *Summer Simulation Conference (SCS) 2015*, track-chair of Wireless Communications track in *Consumer Communication and Networkin Confererence (CCNC) 2015* in Las Vegas, General Chair of *Summer Simulation Conference (SCS) 2016* in Montreal, Program Chair of Simultech 2017 in Madrid, Program Chair of *Distributed Simulation and Real Time (DS-RT)* 2018 in Madrid, Program Chair of *Simultech 2018* in Porto, Portugal, General Chair of *Distributed Simulation and Real Time (DS-RT) 2019* in Rende (CS), Italy, Program Chair in *Simultech 2020* in France (on-line streaming), Program chair of *Distributed Simulation (DS-RT) 2020* in Prague, Czech Republic, Tutorial Chair in *Consumer Communication and Networking Conference (CCNC) 2020* in Las Vegas, General Chair of *Simultech 2021* (from remore in on-line steaming), Program Chair of *Distributed Simulation and Real-Time (DS-RT) 2021*in Valencia, Spain, Program Chair in *Wireless Days 2021* in Paris, France.

He co-authored till now more than 250 papers in International Conferences and Journals. He is also in the Review Board of some international Journals such as in the *International Journal of Communications Systems (Wiley)*, in *Internet Technology Letters* (Wiley), in *Sensors Journal* (Internet of Things section)(MDPI), in *International Journal of Distributed Sensor Networks* (Hindawi), in *International Journal of Digital Multimedia Broadcasting* (Hindawi), in *International Journal of Bio-Inspired Computation,* in *Electronics (Network - section)(MDPI).*

He is a member of the administrative team (as representative of the local research unit) of the Italian Group of Telecommunications and Information Theory (GTTI, Gruppo Nazionale Telecomunicazioni e Teoria dell'Informazione), member of the Italian Inter-UniversityConsortium for the Telecommunications (CNIT, Consorzio Interuniversitario per le Telecomunicazioni), member of the Institute of Electrical and Electronics Engineers (IEEE), IEEE Communications Society and the Association for Computer Machinery (ACM).

Scientific Publications

International Journals

1. M. Tropea, F. De Rango, A.F. Santamaria, "Design of a Two-Stage Scheduling Scheme for DVB-S2/S2X Satellite Architecture," in *IEEE Trans. on Broadcasting*, accepted for publication in 2021.
2. F De Rango, G Potrino, M Tropea, P Fazio, "Energy-aware dynamic Internet of Things security system based on Elliptic Curve Cryptography and Message Queue Telemetry Transport protocol for mitigating Replay attacks," in *Pervasive and Mobile Computing*, Elsevier, Vol. 61, Jan.2020, pp.101-115.
3. M Tropea, F De Rango, "COVID-19 in Italy: current state, impact and ICT-based solutions," in IET Smart Cities, Vol. 2 (2), 2020, pp. 74-81.
4. M Tropea, P Fazio, F De Rango, N Cordeschi, "A New FANET Simulator for Managing Drone Networks and Providing Dynamic Connectivity," in *Electronics*, MDPI, Vol. 9 , N.4, Mar.2020, pp.1-22.
5. P. Fazio, M. Tropea, M. Voznack, F. De Rango, "On packet marking and Markov modeling for IP Traceback: A deep probabilistic and stochastic analysis," in *Computer Networks*, Elsevier, Vol. 182, Dec.2020, pp.1-24.
6. F. De Rango, V. Inzillo, A.A. Quintana*, "*Exploiting Frame Aggregation and Weighted Round Robin with Beamforming Smart Antennas for Directional MAC in MANET Environments*," in Ad Hoc Networks,* Elsevier, Vol.89, 1 June 2019, pp. 186-203.

7. A.F. Santamaria, P. Fazio, M. Tropea, P. Raimondo, F. De Rango, "A New Distributed Predictive Congestion aware Re-routing Algorithm for CO2 Emissions Reduction," in *IEEE Trans. on Vehicular Technology*, March 2019, Early Access, pp.1-14.
8. A.F. Santamaria, P. Raimondo, M. Tropea, F. De Rango, C. Aiello, "An IoT Surveillance System Based on a Decentralised Architecture," in *Sensors*, Hindawi, Vol.19, 2019, pp.1-23.
9. A. Socievole, A. Caputo, F. De Rango, P. Fazio, "Routing in mobile opportunistic social networks with selfish nodes ," in *Wireless Communication and Mobile Computing*, Hindawi, Vol. 2019, Article ID 6359806, pp.1-15.
10. F. De Rango, G. Potrino, M. Tropea, A.F. Santamaria, P. Fazio, "Scalable and ligthway bio-inspired coordination protocol for FANET in precision agriculture applications," in *Computer and Electrical Engineering*,Vol. 74, March 2019, pp. 305-318.
11. N. Palmieri, X.-S. Yang, F. De Rango, S. Marano, "Comparison of bio-inspired algorithms applied to the coordination of mobile robots considering the energy consumption," in *Neural Computing and Applications*, Vol. 31, Issue 1, Jan. 2019, pp. 263-286.
12. A.F. Santamaria, M. Tropea, P. Fazio, F. De Rango, "Managing emergency situations in VANET through heterogeneous technologies cooperation," in *Sensors* Journal, Hindawi, 2018.
13. A.F. Santamaria, F. De Rango, A. Serianni, P. Raimondo, "A real IoT device deployment for e-Health applications under lightweight communication protocols, activity classifier and edge data filtering ," in *Computer Communication* Journal, Elsevier, 2018.
14. N. Palmieri, F. De Rango, X.-S. Yang, A.F. Santamaria, "Self-adaptive decision-making mechanisms to balance the execution of multiple tasks for a multi-robots team," in *Neurocomputing* Journal, 2018.
15. V. Inzillo, F. De Rango, A.A. Quintana, A.F. Santamaria, "An adaptive beamforming time with round-robin MAC algorithm for reducing energy consumption in MANET," in *Journal of Sensors and Actuator Networks* (JSAN), 2018.
16. F. De Rango, N. Palmieri, X.-S. Yang, S. Marano, "Swarm robotics in wireless distributed protocol design for coordinating robots involved in cooperative tasks," in *Soft Computing*, Vol. 22, Issue 6, Jult. 2018, pp. 4251-4266.
17. P.Fazio, F. De Rango, M. Tropea, M. Voznak, "Cell Permanence Time and mobility analysis in infrastructure networks: Analytical/statistical approaches and their applications," in *Computers and Electrical Engineering*, Vol. 64, Nov. 2017, pp. 506-523.
18. P. Fazio, F.De Rango, M. Tropea, "Prediction and QoS Enhanchment in New Generation Cellular Networks with Mobile Hosts: A Survey on Different Protocols and Conventional/Unconventional Approaches," in *IEEE Communications Surveys and Tutorials,* Vol. 19, Issue 3, Third Quarter 2017, pp. 1822-1841.
19. Y. Cevallos, L. Molina, A. Santillan, F. De Rango, A. Rushdi, J.B. Alonso, "A Digital Communication Analysis of Gene Expression of Proteins in Biological Systems: A Layered Network Model View," in *Cognitive Computation*, Vol. 9, Issue 1, 1 Feb. 2017, pp. 43-67.
20. V. Inzillo, F. De Rango, A. Quintana, "A low energy consumption smart antenna adaptive array system for mobile Ad Hoc Networks," in *International Journal of Computing*, Vol. 16, Issue 3, 2017, pp. 124-132.
21. A. Socievole, F. De Rango, C. Scoglio, P. Van Mighem, "Assessing network robustness under SIS epidemics: The relationship between epidemic threshold and viral conductance," in *Computer Networks*, Elsevier, Vol. 103, 5 July 2016, pp. 196–206.
22. P. Fazio, M. Tropea, F. De Rango, M. Voznack, "Pattern Prediction and Passive Bandwidth Management for Hand-Over Optimization in QoS Cellular Networks with Vehicular Mobility," in *IEEE Trans. on Mobile Computing*, 2016, pp.1-14.
23. A. Socievole, F. De Rango, A. Caputo, "Opportunistic mobile social networks: from mobility and Facebook friendships to structural analysis of user social behaviour," in *Computer Communications*, Vol.87, Aug. 2016, pp.1-18.
24. M. Tropea, P. Fazio, F. De Rango, S. Marano, "A Novel MF-TDMA/SCPC Switching Algorithm for DVB-RCS/RCS2 Return Link in Railway Scenario," in *IEEE Transaction on Aerospace and Electronic Systems*, Vol.52, Issue (1), 2016, pp. 275-287.
25. P. Fazio, F. De Rango, C. Sottile, "A Predictive Cross-layered Interference Management in a Multi-channel MAC with Reactive Routing in VANET," in *IEEE Transaction on Mobile Computing*, Vol.15, Issue 8, Aug. 2016, pp. 1850-1862.
26. F. De Rango, N. Palmieri, S. Ranieri, "Spatial correlation based low energy aware clustering (LEACH) in a wireless sensor networks," in *Advances in Electrical and Electronic Engineering*, Vol.13, Issue 4, 2015, pp. 350-358.
27. A. Socievole, E. Yoneki, F. De Rango, J. Crowcroft. "ML-SOR: message routing using multi-layer social networks in opportunistic communications", in *Elsevier Computer Networks Journal*, Vol. 81, April 2015, pp. 201-219.
28. F. De Rango, A. Socievole, S. Marano. "Exploiting Online and Offline Activity-based Metrics for Opportunistic Forwarding", in *Springer Wireless Networks Journal*, Vol. 21, Issue 4, May 2015, pp. 1163-1179.
29. A. Lupia, F. De Rango, "Evaluation of the Energy Consumption Introduced by a Trust Management Scheme on Mobile Ad-hoc Networks," in *Journal of Networks*, Vol. 10, Issue (4), pp. 240-251, (2015).

30. P. Fazio, M. Tropea, F. De Rango, "A Novel PER Degradation Model for VANETs", in *IEEE Communication Letters*, Vol.19, Issue 5, May 2015, pp.851-854.
31. A. F. Santamaria, C. Sottile, F. De Rango, S. Marano, "Safety enhanchements and Carbon Dioxide (CO2) reduction in VANETs," in *Mobile Networks and Applicitons (MONET)*, Vol.20, Issue 2, Apr. 2015, pp. 220-238.
32. F. De Rango, S. Amelio, P. Fazio, " Epidemic Strategies in Delay Tolerant Networks from an Energetic Point of View: Main Issues and Performance Evaluation," in *Journal of Networks*, Vol 10, no.1, Feb 2015.
33. F. De Rango, P. Fazio, F. Scarcello, F. Conte, "A New Distributed Application and Network Layer Protocol for VoIP in Mobile Ad Hoc Networks," in *IEEE Trans. on Mobile Computing*, Vol.13, Issue 10, Oct.2014, pp.2185-2198.
34. P. Fazio, F. De Rango, A. Lupia, "Vehicular networks and road safety: An application for emergency/danger situations management using the WAVE/802.11p standard," in *Advances in Electrical and Electronic Engineering*, Vol. 11, Issue 5, 2013, pp. 357-364.
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41. F.DeRango, "An enhanced SAPDV Protocol for MANET through Intrusion Detection System, Trust Level Management and Incentive Cooperation," in *International Journal of Interdisciplinary Telecommunications and Networking (IJITN)*, Vol.1, Issue 4, 2009, pp.54-70.
42. F.DeRango, F.Veltri, P.Fazio, S.Marano, "Two-level Trajectory-based Routing Protocol for Vechicular Ad Hoc Networks in Freeway and Manhattan Environments," in *Journal of Networks* (JNW), Vol.4, No.9, Nov.2009, pp.866-880.
43. F.De Rango, M.Tropea, A.F.Santamaria, S.Marano, "Multicast QoS Core-based Tree Routing Protocol and Genetic Algorithm over an HAP-Satellite Architecture," in *IEEE Transaction on Vechicular Technology*, Vol.58, Issue 8, 2009, pp.4447-4461.
44. M.Tropea, F.De Rango, "DVB-RCS Satellite Systems toward Mobility support:Overview of Current Issues and Future Trend," in *IEEE Aerospace Magazine*, Vol.24, Issue 9, Sept.2009, pp.1493-1512.
45. F.De Rango, P.Fazio, S.Marano, "Utility-Based Predictive Services for Adaptive Wireless Networks with Mobile Hosts" in *IEEE Transaction on Vehicular Technology*, March.2009.
46. F.Guerriero, F.De Rango, S.Marano, E.Bruno, "A Biobjective Optimization Model for Routing in Mobile Ad Hoc Networks,"in *Applied Mathematical Modelling*, Elsevier, Vol.33, Issue 3, March 2009, pp.1493-1512.
47. F.De Rango, J.-C.Cano, M.Fotino, C.Calafate, P.Manzoni, S.Marano, "OLSR vs DSR: A comparative analysis of proactive and reactive mechanisms from an energetic point of view in Wireless Ad HocNetworks," in *Computer Communication Journal*, Elsevier, Oct.2008, pp.3843-3854.
48. F.De Rango, M.Tropea, P.Fazio, S.Marano, "Call Admission Control for Aggregate MPEG-2 Traffic over Multimedia Geo-Satellite Networks," in *IEEE Transaction on Broadcasting*, Vol.54, Issue 3, Sept.2008, pp.612-622.
49. F.De Rango, F.Veltri, M.Tropea, A.F.Santamaria, P.Fazio, A.Malfitano, S.Marano, "Interdisciplinary issues for the management of next generation autonomic wireless systems: nature-inspired techniques and organic computing", in *International Journal Mobile Network Design and Innovation*, 2008.
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52. F.De Rango, M.Tropea, A.F.Santamaria, S.Marano, "An Enhanced QoS CBT Multicast Routing Protocol based on Genetic Algorithm in a Hybrid HAP-Satellite System," in *Computer Communication Journal (Elsevier)*, December 2007.
53. F.De Rango, F.Guerriero, S.Marano, E.Bruno, "A Multiobjective Approach for Energy Consumption and Link Stability Issues in Ad Hoc Networks," in *IEEE Communications Letters*, Vol.10, N.1, Jan.2006, pp.28-30.

54. F. De Rango, M.Tropea, S.Marano, "Integrated Services on High Altitude Platform: Receiver Driven Smart Selection of HAP-Geo SatelliteWireless Access Segment and Performance Evaluation," in *International Journal on Wireless Information Networks*, Vol.13, N.1, Jan.2006, pp.77-94.
55. F.De Rango, M.Tropea, P.Fazio, S.Marano, "A Scalable Approach for QoS Management in Next Generation Multimedia GEO-Satellite Networks," in *ASSI Satellite Communications Letter*, Vol.6, N.1, Feb.2006.
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60. B.Zhou, Y.-Z.Lee, M.Gerla, F. De Rango, "Geo-LANMAR: A Scalable Routing Protocol for ad hoc networks with group motion," in *Wireless Communication and Mobile Computing*, Vol.6, Nov.2006, pp.989-1002.
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62. F.De Rango, S.Marano, "Performance Evaluation of Direction and Location Based Routing in Wireless Ad Hoc Networks," in *GESTS International Transactions on Computer Science and Engineering*, Vol.22, N.1, Nov.2005, pp.223-243.

Book Chapters

1. F. De Rango, N. Palmieri, M. Tropea, "Multirobot coordination through bio-inspired strategies," in *Nature-Inspired Computation and Swarm Intelligence*, Book chapter, Academic Press, 2020, pp.361-390.
2. V. Inzillo, F. De Rango, L. Zampogna, A.A. Quintana, "Smart Antenna Systems Model Simulation Design for 5G Wireless Network Systems," in *Array Pattern Optimization*, In TechOpen Book chapter, 2018, pp.1-21.
3. A.F. Santamaria, P. Raimondo, N. Palmieri, M. Tropea, F. De Rango, "Cooperative Video-Surveillance Framework in *Internet of Things* (IoT) Domain," in The Internet of Things for Smart Urban Ecosystems, Book Springer Chapter, 2019, pp.305-331.
4. F.De Rango, M.Tropea, P.Fazio, "Multimedia Traffic and Video Distribution over Broadband Wireless Networks,"chapter for *Digital Video*", In-Tech Edition, 2010, ISBN 978-3-902613-44-8.
5. F.De Rango, A.Malfitano, "Cross –Layer QoS Architecture: The WiMax point of view," book chapter (ch.4) in "Quality of Service Architectures for Wireless Networks, Performance Mettrics and Management," an *IGI Publication, 2010, pp.57-85*.
6. F.De Rango, A.Malfitano, "Cross –Layer based end-to-end QoS Mechanisms: The Milestone of WiMax," chapter (ch.5) on *WiMAX Security and Quality of Service: Providing an End to End Explanation* book, Wiley edition, 2010, pp.111-144, ISBN-978-0-470-72197-1.
7. M.Fotino, F.De Rango, "Energy Issues and Energy aware Routing in Wireless Ad-hoc Networks," chapter (ch.15) for *Theory and Application of Ad Hoc Networks*, In-Tech Edition, pp.281-296, ISBN: 978-953-307-402-3.
8. F.De Rango, A.Socievole, "Meta-heuristics Techniques and Swarm Intelligence in Mobile Ad Hoc Networks (MANETs)," chapter (ch.11) for *Theory and Application of Ad Hoc Networks*, In-Tech Edition, pp.255-274, ISBN: 978-953-307-416-0.

International Conferences

1. F. De Rango, N. Cordeschi, F. Ritacco, *"*Applying Q-learning approach to CSMA Schemed to dynamically tune the contention probability*," in Consumer Communication and Networking Conference (CCNC) 2021, Jan. 2021, pp.1-5.*
2. F. De Rango, M. Tropea, S. Amelio, "Energy Aware Epidemic Strategies for Mobile Opportunistic Networks," in *International Conference on Ad-Hoc Networks and Wireless (Ad Hoc Now)*, 2020, pp. 269-281.

3. N. Nevigato, M. Tropea, F. De Rango, "Collision Avoidance Proposal in a MEC based VANET environment," in*IEEE/ACM 24th International Symposium on Distributed Simulation and Real Time Applications* (DS-RT), Sept.2020, pp.1-7.
4. F. De Rango, S. Amelio, "Geographic and Energy aware Epidemic Strategy for Mobile Opportunistic DTN," in *29th International Conference on Computer Communications and Networks (ICCCN)*, Aug.2020, pp.1-8.
5. F De Rango, M Tropea, P Fazio, "Mitigating DoS attacks in IoT EDGE Layer to preserve QoS topics and nodes' energy," in *IEEE INCOCOM 2020-IEEE Conference on Computer Communications Workshops* (INFOCOM WKSHPS), Aug.2020, pp.842-847.
6. F. De Rango, M. Tropea, P. Raimondo, A.F. Santamaria, "Grey Wolf Optimization in VANET to manage Platooning of Future Autonomous Electrical Vehicles," in IEEE 17th Annual Consumer Communications & Networking Conference (CCNC 2020), Jan.2020, pp.1-2.
7. F De Rango, P Raimondo, D Amendola, "Extending SUMO and PLEXE simulator modules to consider energy consumption in platooning management in VANET," in I*EEE/ACM 23rd International Symposium on Distributed Simulation and Real Time Applications* (DS-RT), Oct.2019, pp.1-7.
8. F. De Rango, M. Tropea, P. Raimondo, AF Santamaria, P Fazio, "Bio inspired strategy for improving platoon management in the future autonomous electrical vanet environment," in *28th International Conference on Computer Communication and Networks* (ICCCN), July 2019, pp.1-7.
9. M. Tropea, F. De Rango, P. Fazio, "A Simulator for Drones and FANET Management Supporting Multimedia Traffic under Human Mobility," in *Proc. of the 9th International Conference on Simulation and Modeling Methodologies, Technologies and Applications*, 2019, pp.376-383.
10. F. De Rango, M. Tropea, P. Fazio, "Bio-inspired routing over fanet in emergency situations to support multimedia traffic," in *Proceedings of the ACM MobiHoc workshop on innovative aerial communication solutions for FIrst REsponders network in emergency scenarios*, 2019, pp.12-17.
11. V. Inzillo, F. De Rango, A.A. Quintana, "A Novel Algorithm For Limiting Energy Consumption in 5G Wireless Environments Using Massive MIMO Systems," in *IEEE 89th Vehicular Technology Conference* (VTC2019-Spring), Apr.2019, pp.1-5.
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123. F.De Rango, A.Perrotta, S.Ombres, S.Marano, "QoS-CROMA: An On-demand Time-Slotted MAC Protocol with QoS support for Wireless Ad Hoc Networks" *4th International Symposium on Wireless Communication Systems (ISWCS'07),* Trondheim, Norway, 17-19 Oct. 2007.
124. F.De Rango, P.Fazio, F.Veltri, S.Marano, "Interference Aware Routing Protocols over Ad Hoc UWB Networks," *4th International Symposium on Wireless Communication Systems (ISWCS'07),* Trondheim, Norway, 17-19 Oct. 2007.
125. F.DeRango, F.Veltri, A.F.Santamaria, M.Tropea, S.Marano "Software Defined Radio-based Multi-Mode DVB-RCS Terminals," *Milcom'07*, 29-31 Oct., Orlando, Florida.
126. A.Malfitano, F.DeRango, S.Marano, "Parametric Markov Chain Model in HAP Architecture with IEEE 802.16 Protocol," *Int. Symposium on Wireless Personal Multimedia Communications*, 3-10 Dec., Jaipur, India, 2007.
127. F.De Rango, M.Tropea, A.Provato, A.F.Santamaria, S.Marano, "Multi-Constraints Routing Algorithm based on Swarm Intelligence over High Altitude Platforms," *Int. Workshop on Nature Inspired Cooperative Strategies for Optimization*, Acireale, Sicily (Italy), November 8-10, 2007.
128. F.De Rango, P.Fazio, S.Marano, "Mobility Independent Predictive Services in WLAN Networks with Predictive Reservation Policy under a 2D Mobility Model," *Wireless Telecommunication Symposium (WTS 2006)*, Pomona, CA, USA, Apr. 27-29, 2006.
129. F.De Rango, A.Malfitano, S.Marano, "BER and PER Evaluation for IEEE 802.16e Protocol in HAP Architecture with User Mobility," *Wireless Telecommunication Symposium (WTS 2006)*, Pomona, CA, USA, Apr.27-29, 2006.
130. F.De Rango, P.Fazio, F.Veltri, S.Marano, "Distance-Dependent BER Evaluation of DS-SS IEEE 802.15.3 Physical Layer under Multiple User Data-Rates and Multi-User Interference," *13rd International Conference on Telecommunications (ICT 2006)*, Madeira Island, Portugal, May 9-12, 2006.
131. F.De Rango, M.Tropea, S.Marano, "The Important Role of Gateway in a Hybrid HAP/DVB-RCS Satellite Platform," *13rd International Conference on Telecommunications (ICT 2006)*, Madeira Island, Portugal, May 9-12, 2006.
132. F.De Rango, A.Malfitano, S.Marano, "Wireless Channel Evaluation of IEEE 802.16 Protocol in HAP Architecture with Mobility Scenario under Different Modulation Schemes," *13rd International Conference on Telecommunications (ICT 2006),* Madeira Island, Portugal, May 9-12, 2006.

133. F.De Rango, M.Tropea, A.F.Santamaria, S.Marano, "A QoS Multicast Genetic Algorithm in a Hybrid HAP/DVB-RCS Satellite Platform," 1*3rd International Conference on Telecommunications (ICT 2006)*, Madeira Island, Portugal, May 9-12, 2006.
134. F.De Rango, P.Fazio, S.Marano, "An Active Reservation Scheme with Predictive Estimation in WLAN Networks under 2D Mobility Models," *13rd International Conference on Telecommunications (ICT 2006),*Madeira Island, Portugal, May 9-12, 2006.
135. F.De Rango, P.Fazio, S.Marano, "Mobility Prediction and Resource Reservation in WLAN Networks under a 2D Mobility Models," *63rd Vehicular Technology Conference (VTC Fall 2006)*, Montreal, Canada, Sept..25-28, 2006.
136. F.De Rango, P.Fazio, F.Veltri, S.Marano, "Time and Distance Dependent UWB Channel Modelling: BER and PER Evaluation for DS-SS Modulation," *63rd Vehicular Technology Conference (VTC Fall 2006)*, Montreal, Canada, Sept..25-28, 2006.
137. P.Fazio, F.De Rango, F.Veltri, S.Marano, "Performance Evaluation of the packet Error Rate of DS-SS Physical layer in UWB Networks," *Canadian Conference on Electrical and Computer Engineering (CCECE 2006)*, Ottawa, Canada, May 7-10, 2006.
138. F.De Rango, P.Fazio, F.Veltri, S.Marano, "DS-SS UWB Wireless Personal Area Network: BER and PER Evaluation under a MMSE Receiver," *Int. Symposium on Performance Evaluation of Comp. and Telecomm.Systems (SPECTS'06)*, July 31- Aug.2, 2006.
139. F.De Rango, M.Tropea, A.F.Santamaria, S.Marano, "QoS Core Based Tree Multicast Routing based on Genetic Algorithm in a Hybrid HAP-Satellite Architecture," *Int. Symposium on Performance Evaluation of Comp. and Telecomm.Systems (SPECTS'06)*, July 31 ? Aug.2, 2006.
140. F.De Rango, M.Tropea, P.Fazio, F.Veltri, A.F.Santamaria, S.Marano, "Software Defined Radio based Multi-Mode Satellite Terminal over DVB-RCS Paltform," *12th Ka and Broadband Communications Conference*, Naples, Italy, Sept. 27-29, 2006.
141. F.De Rango, M.Tropea, A.F.Santamaria, S.Marano, "QoS Multicast over Hybrid HAP-Satellite Networks," *12th Ka and Broadband Communications Conference*, Naples, Italy, Sept. 27-29, 2006.
142. F.De Rango, P.Fazio, F.Veltri, S.Marano, "PER Analysis and Performance Evaluation of DS-SS UWB Networks,"*17th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'06)*, Helsinki, Finland, 11-12 Sept., 2006.
143. F.De Rango, A.Malfitano, S.Marano, "Wireless Channel Evaluation of 802.16e Protocol in a HAP Architecture in Mesh Configuration with Mobile Users," *IEEE Global Telecommunications Conference (Globecom'06),* 28Nov-2Dec., Alaska, 2006.
144. F.De Rango, P.Fazio, S.Marano, "Cell Stay Time Prediction for Mobility Independent Predictive Services in Wireless Networks," *IEEE Wireless Communications and Networking Conference (WCNC2005)*, New Orleans, Los Angeles, USA, 13-17 March 2005.
145. F.De Rango, B.Zhou, M.Gerla, S.Marano, "GeoLANMAR: Geo Assisted Landmark Routing for Scalable, Group Motion Wireless Ad Hoc Networks," *IEEE Vehicular Technology Conference (VTC2005 Spring)*, Stockolm, Sweden, 29 May -1 June, 2005.
146. V.Loscri, F.De Rango, S.Marano, "Soft-QoS Ad Hoc On Demand Multipath Distance Vector Routing in Wireless Ad Hoc Networks," *12th International Conference on Telecommunications (ICT 2005)*, Capetown, South Africa, May 2005.
147. F.De Rango, F.Guerriero, S.Marano, E.Bruno, "A bicriteria network flow problem to minimize energy consumption and maximize link stability in ad networks," *Annual Conference Italian Operation Research Society (AIRO 2005),*Camerino, 6th-9th Sept.2005.
148. F.De Rango, M.Tropea, P.Fazio, V.Loscri, S.Marano, "Scalable QoS Management in Next Generation GEO-Satellite Networks," *Int. Symposium on Performance Evaluation of Comp. and Telecomm.Systems (SPECTS'05)*, 24-28 July, 2005.
149. F.De Rango, P.Fazio, S.Marano, "Adaptive Reservation in WLAN Networks under Smooth Random Mobility Model," *62th Vehicular Technology Conference (VTC Fall 2005)*, 25-28 Sept., 2005.
150. V.Loscri, F.De Rango, S.Marano, "A Correction for Ad hoc On Demand Multipath Distance Vector Routing protocol (AOMDV)," *62th Vehicular Technology Conference (VTC Fall 2005)*, 25-28 Sept., 2005.
151. F.De Rango, M.Gerla, K.Biao Zhou, S.Marano, "GeO-LANMAR Routing Protocol: Asymptotic Analysis in Large and Dense Ad Hoc Networks," *2nd Int. Conf. On Broadband Networks (Broadnet 2005)*, 3-7 Oct., Boston, Massachussets, USA, 2005.
152. F.De Rango, M.Gerla, B.Zhou, S.Marano, "GeO-LANMAR: A Scalable Routing Protocol for very Large, Dense Ad Hoc Networks with Group Motion," *IEEE Global Telecommunications Conference (Globecom'05)*, 28Nov-2Dec.2005.
153. F.De Rango, M.Tropea, P.Fazio, S.Marano, "Call Admission Control with Statistical Multiplexing for Aggregate MPEG Traffic in a DVB-RCS Satellite Network," *IEEE Global Telecommunications Conference (Globecom'05)*, 28Nov-2Dec.2005.
154. F.De Rango, M.Tropea, S.Marano, "Call Admission Control for Integrated Diff-Serv Terrestrial and Int-Serv Satellite Network," *IEEE Vehicular Technology Conference (VTC2004 Spring)*, Genova, Italy, May2004.

155. P.Pace, F.De Rango, E.Natalizio, G.Aloi, A.Molinaro, S.Marano, "An integrated Satellite-HAP-Terrestrial system architecture: resources allocation and traffic management issues," *IEEE Vehicular Technology Conference (VTC2004 Spring)*, Genova, Italy, May2004.
156. F.De Rango, M.Tropea, S.Marano, "Aggregated Resource Reservation Protocol in Integrated Scalable-Terrestrial and Int-Serv Satellite Network," *IEEE Wireless Communications and Networking Conference (WCNC2004)*, Atlanta, Georgia, USA, March 2004.
157. F.De Rango, M.Tropea, S.Marano, "Controlled Load Service Management in Int-Serv Satellite Access Network," *in Canadian Conference on Electrical and Computer Engineering (CCECE 2004)*, Ontario, Canada, May 2004.
158. F.De Rango, G.Aloi, S.Marano, "Average Degradation Degree Fair Adaptation Algorithm in Wireless Network with Mobile Hosts," *in Canadian Conference on Electrical and Computer Engineering (CCECE 2004)*, Ontario, Canada, May 2004.
159. F.De Rango, G.Aloi, S.Marano, "A Fair Rate Adaptation Algorithm based on the Degradation Factor for Integrated Wireless Networks with Mobile Nodes," *in 13th IEEE Workshop on Local and Metropolitan Area Networks (LANMAN 2004),* CA, USA, April 2004.
160. F.De Rango, G.Aloi, S.Marano, "An Efficient Rate Adaptation Scheme in Wireless Mobile Networks," *in Wireless Telecommunications Symposium (WTS2004)*, Pomona, California, USA, May 2004.
161. F.De Rango, V.Loscri, S.Marano, "Performance Evaluation of AODV protocol over E-TDMA MAC protocol for Wireless Ad Hoc Networks," *in 11th International Conference on Telecommunications (ICT 2004)*, Fortaleza, Brasil, August 2004.
162. F.De Rango, M.Tropea, S.Marano, "Controlled Load Services in IP QoS Geostazionary Satellite Networks," *in 11th International Conference on Telecommunications (ICT 2004),* Fortaleza, Brasil, August 2004.
163. F.De Rango, S.Marano, "An Average Degradation Degree and Ratio based Rate Adaptation Algorithm for Wireless Mobile Networks," *in 15th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC04)*, Barcelona, Spain, Sept. 2004.
164. F.De Rango, M.Tropea, S.Marano, "Controlled Load Services Management based on Smoothing Factor and Request Timeout on Satellite Systems," *in 15th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC04)*, Barcelona, Spain, Sept. 2004.
165. V.Loscri, F.De Rango, S.Marano, "On-demand Multipath Distance Vector Routing protocol over E-TDMA MAC in Wireless Ad Hoc Networks," in *7th International Symposium on Wireless Personal Multimedia Communications (WPMC?04)*, Albano Terme, Italy, Sept.2004.
166. F.De Rango, P.Fazio, S.Marano, "Resource Reservation and Utility based Rate Adaptation in Wireless LAN with Slow Fading Channels," *in 7th International Symposium on Wireless Personal Multimedia Communications (WPMC?04)*, Albano Terme, Italy, Sept.2004.
167. F.De Rango, M.Tropea, S.Marano, "Controlled Load Traffic Management through bandwidth smoothing factor," *in 7th International Symposium on Wireless Personal Multimedia Communications (WPMC?04)*, Albano Terme, Italy, Sept.2004.
168. F.De Rango, M.Tropea, S.Marano, "Predictive Aggregate Resource Reservation in an Integrated Scalable Terrestrial-Geostazionary Satellite Network," *in 7th International Symposium on Wireless Personal Multimedia Communications (WPMC?04),* Albano Terme, Italy, Sept.2004.
169. F.De Rango, M.Tropea, S.Marano, "Receiver driven Adaptive Selection of HAP-Satellite Segment," in *7th International Symposium on Wireless Personal Multimedia Communications (WPMC?04),* Albano Terme, Italy, Sept.2004.
170. F.De Rango, P.Fazio, S.Marano, "Utility-based Adaptivity and Partial Resource Reservation in Wireless/Mobile Multimedia Networks," *in 1th International Symposium on Wireless Communication Systems (ISWCS?04)*, Mauritius, July 2004.
171. V.Loscri, F.De Rango, S.Marano, "Performance Evaluation of On-Demand Multi-path Distance Vector Routing over two Mac Layers in Mobile Ad-Hoc Networks," in *1th International Symposium on Wireless Communication Systems (ISWCS?04),* Mauritius, July 2004.
172. F.De Rango, M.Tropea, S.Marano, "Aggregate Resource Reservation with Predictive Estimation in Integrated Scalable Terrestrial-Satellite Network," *in 1th International Symposium on Wireless Communication Systems (ISWCS?04),* Mauritius, July 2004.
173. F.De Rango, P.Fazio, S.Marano, "Mobility Indipendent and Dependent Predictive Services Management in Wireless/Mobile Multimedia Network," *in IEEE Vehicular Technology Conference 2004 Fall (VTC Fall 2004),* Los Angeles, CA, USA, Sept.2004.
174. V.Loscri, F.De Rango, S.Marano, "Tuning the parameters of E-TDMA MAC for an Efficient Multipath-AODV over Wireless Ad Hoc Networks," in *IEEE Vehicular Technology Conference 2004 Fall (VTC Fall 2004)*, Los Angeles, CA, USA, Sept.2004.
175. F.De Rango, A.Iera, A.Molinaro, S.Marano, "A Modified Location-Aided Routing Protocol for the Reduction of Control Overhead in Ad-hoc Wireless Networks," in *IEEE International Conference on Telecommunications (ICT)*, Papeete, French Polynesia, Feb 2003.

176. F.De Rango, A.Iera, A.Molinaro, S.Marano, "Multi-step Increase of the Forwarding Zone for LAR protocol in Ad Hoc Networks," *Proceedings of the IEEE International Vehicular Technology Conference (VTC Spring),* Jeju, Korea, Apr. 2003.
177. F.De Rango, A.Molinaro, A.Iera, S.Marano, "Multi-step Resizing of the Request Zone in Ad Hoc Networks," *in IEEE International Symposium on Personal, Indoor and Mobile Radio Communication (PIMRC)*, Beijing, China, Sept. 2003.
178. F.De Rango, G.Aloi, S.Marano, "Introduction of Node Promiscuity Listen Mode and Optimisations in LAR Protocol for Wireless Ad Hoc Networks," *Proceedings of the International Conference on Mobile and Wireless Communications Networks (MWCN)*, Singapore, Oct.. 2003.
179. F.De Rango, A.Molinaro, S.Marano, "Guaranteed Services in Integrated Terrestrial-Broadband Satellite Networks," *Proceedings of International Symposium on Wireless Personal Multimedia Communications (WPMC)*, Yokosuka, Kanagawa, Japan, Oct. 2003.
180. F.De Rango, A.Molinaro, S.Marano, "Forwarding Zone Adaptation through Direction Info of Mobile Nodes on Ad Hoc Networks," *Proceedings of International Symposium on Wireless Personal Multimedia Communications (WPMC),* Yokosuka, Kanagawa, Japan, Oct. 2003.

Editorial Activities

Technical Program Committee (TPC) member in the following International Conferences:

Reviewers for more than 80 conferences related to ICT. Some conferences are listed below:

- Spects 2006-2021
- Globecom 2006-2021
- Med Hoc Net 2006
- WCNC 2007-2021
- ICC 2007-2021
- WTS 2007-2021
- WinSys 2008-2016
- WTS 2009 (track chair)
- Spacomm 2009
- Winsys 2009
- CTRQ 2009
- ChinaCom 2009
- N2S 2009
- Ambisys 2009 (panel chair)
- Second International Conference on New Technologies, Mobility and Security (NTMS'09)

Editorial Board Member

International Journal on Communication Systems, Elsevier (2014-2018).

Internet Technology Letters, Wiley (2019-2021).

Sensors Journal (MDPI) (2018-2021).

Electronics (MDPI) (2018-2021).

International Journal of Digital Multimedia Broadcasting (Hindawi Pubblisher, Open Access Journal) (2017-2021).

International Journal of Distributed Sensor Networks (Hindawi. Open Access Journal) (2018-2021).

International Journal of Bio-Inspired Computation (2018-2021).

Teaching Activities

From 2019 to 2021 Teaching in the following classes:

- "*ICT for Internet of Things*" in the Master Degree in Telecommunication Engineering and in Computer Science Engineering.
- "*Network Security*" in the Master Degree in Cyber Security (Computer Science Engineering).
- "*Fundamentals of Networking*" in Computer Science Engineering Bachelor Degree.

From 2018 to 2019 Teaching in the following classes:

- "*Internet of Things*" in the Master Degree in Telecommunication Engineerand in Computer Science Engineering.
- "*Information Theory and Applications*" in the Master Degree in Computer Science Engineering.
- "*Fundamentals of Networking*" in Computer Science Engineering Bachelor Degree.

From 2017 to 2018 Teaching in the following classes:

- "*Internet of Things*" in the Master Degree in Telecommunication Engineerand in Computer Science Engineering.
- "*Information Theory and Applications*" in the Master Degree in Computer Science Engineering.
- "*Fundamentals of Networking*" in Computer Science Engineering Bachelor Degree.
- "*QoS and Security in Networking*" in Computer Science Engineering Bachelor Degree.

From 2016 to 2017 Teaching in the following classes :

- "*Internet of Things*" in the Master Degree in Telecommunication Engineering in Computer Science Engineering.
- "*Information Theory and Applications*" in the Master Degree in Computer Science Engineering.
- "*Fundamentals of Networking*" in Computer Science Engineering Bachelor Degree.

From 2015 to 2016 Teaching in the following classes :

- "*Information Theory and Applications*" in the Computer Science Engineering Bachelor Degree and Telecommunication Master Degree.
- "*Telecommunication Networks*" in the Bachelor Electronic and Computer Science Engineering Degree.
- "*Wireless Networks II*" in Telecommunication Engineering Master Degree.

From 2014 to 2015 Teaching in the following classes :

- "*Information Theory and Applications*" in the Computer Science Engineering Master Degree.
- "*Telecommunication Networks*" in the Bachelor Electronic and Computer Science Engineering Degree.
- "*Wireless Networks II*" in Telecommunication Engineering Master Degree.

From 2013 to 2014 Teaching in the following classes :

- "*Information Theory and Applications*" in the Computer Science Engineering Master Degree.
- "*Telecommunication Networks*" in the Bachelor Electronic and Computer Science Engineering Degree.
- *"QoS ans Security in Networking" in* the Computer Science Engineering Bachelor Degree.
- "*Wireless Networks II*" in Telecommunication Engineering Master Degree.

From 2012 to 2013 Teaching in the following classes :

- "*Information Theory and Applications*" in the Computer Science Engineering Master Degree.
- "*Telecommunication Networks*" in the Bachelor Electronic and Computer Science Engineering Degree.

- "*Wireless Networks II*" in Telecommunication Engineering Master Degree.

From 2011 to 2012 Teaching in the following classes :

- "*Information Theory and Applications*" in the Computer Science Engineering Master Degree.
- "*Telecommunication Networks*" in the Bachelor Electronic and Computer Science Engineering Degree.
- "*Wireless Networks II*" in Telecommunication Engineering Master Degree.

From 2009 to 2010 Teaching in the following classes :

- "*Designing Techniques of Advanced Cellular Networks*" in the Computer Science Engineering Bachelor Degree and Telecommunication Master Degree.
- "*Telecommunication Systems*" in the Bachelor Electronic and Computer Science Engineering Degree.
- "*Multimedia Networks*" in Electronic Engineering Bachelor Degree and Telecommunication Engineering Master Degree.

From 2008 to 2009 Teaching in the following classes :

- "*Designing Techniques of Advanced Cellular Networks*" (54 lesson hours) in the Computer Science Engineering Bachelor Degree and Telecommunication Engineering Master Degree.
- "*Telecommunication Systems*" (33 lesson hours) in the Bachelor Electronic and Computer Science Engineering Degree.
- "*Radiomobile Networks II*" (18 lesson hours) in Electronic Engineering Bachelor Degree and Telecommunication Engineering Master Degree.

From 2007 to 2008 Teaching in the following classes :

- "*Designing Techniques of Advanced Cellular Networks*" (54 lesson hours) in the Computer Science Engineering Bachelor Degree and Telecommunication Engineering Master Degree.
- "*Telecommunication Systems*" (33 lesson hours) in the Bachelor Electronic and Computer Science Engineering Degree.
- "*Radiomobile Networks II*" (18 lesson hours) in Electronic Engineering Bachelor Degree and Telecommunication Engineering Master Degree.

From 2006 to 2007 Teaching in the following classes:

- "*Laboratory and Designing of IP Networks*"(54 lesson hours) in Telecommunication Master Degree.
- "*Telecommunication Systems*" (33 lesson hours) in the Electronic and Computer Science Engineering Bachelor Degree.
- "*Radiomobile Networks II*" (18 lesson hours) in Electronic Engineering Bachelor Degree and Telecommunication Engineering Master Degree.

From 2005 to 2006 Teaching in the following classes:

- "*Radiomobile Networks II*" (33 lesson hours) in Electronic Engineering Bachelor Degree and Telecommunication Engineering Master Degree.
- "*Laboratory and Designing of IP Networks*" (54 lesson hours) in Telecommunication Master Degree.
- "*Radiomobile Networks I*" (33 lesson hours) in Telecommunication Engineering Master Degree.

From 2004 to 2005 Teaching in the following classes:

- "*Laboratory and Designing of IP Networks*" (54 lesson hours) in Telecommunication Master Degree.
- "*Fundamentals of Telecommunications*" (54 lesson hours) in Electronic Engineering and Computer Science Bachelor Degree.
- "*IP Evolutions and Internetworking*" in Telecommunication Engineering Master Degree.

[A.A. 2001-2003] Senior Tutor of the following classes:

- "*Telecommunication Networks*" Bachelor Degree in Electronic Engineering.
- "*Analog and Digital Communication Systems*" in Electronic Engineering Bachelor Degree.
- "*Electrical Communications*" in Electronic and Computer Science Engineering Master Degree.
- *"Telematic"* in Electronic and Computer Science Engineering Master Degree.
- *"Fundamentals of Telecommunication"* in Electronic and Computer Science Engineering Master Degree.

Services at the University

- Member of the PhD board in "Ingegneria dei Sistemi e Informatica", UNICAL, from XXII to XXVIII ciclo (08/01/2007 - 30/10/2015)
- Member of the PhD board in "Information and Communication Engineering for Pervasive Intelligent Environments", UNICAL, XXIX ciclo (08/09/2013 - 30/10/2016)
- Member of the PhD board in "Information and Communication Technologies", UNICAL, from XXX to XXXVI ciclo (dal 09/05/2014 – till now).

He teached in many high specialization courses and second level masters. Moreover, he has been involved in the evaluation of projects for the University in the role of president of the evaluation commission and member.

Funded Projects

Regional Project S3HM: Savuto Structural Smart Health Monitoring. Funded by Regione Calabria

From 2020 to 2021

- Project Title: S3HM
- Research Activity title: Design of a continuous monitoring system to evaluate the health status of building.
- Brief Research Activity Description: Design of a continuous monitoring system able to evaluate the health status of old building. The system needs to be integrated with LORA technologies to support long range and low cost communication for IoT sensors distributed inside building.

National Project PON COGITO: A COGnItive dynamic sysTem to allOw buildings to learn and adapt. Funded by Ministero dello Sviluppo Economico

From 2018 to 2021

- Project Title: COGITO
- Research Activity title: Design of a cooperative multi-camera systems to detect anomalous activities.
- Brief Research Activity Description: Design of an innovative cooperative multi-camera systems to track users and detect anomaly situations applying edge computing.

National Project PON ComeSto: Community Energy Storage. Funded by Ministero dello Sviluppo Economico

From 2018 to 2021

- Project Title: ComeSto
- Research Activity title: Analysis of security threats in novel smart grid systems and design of security features in a community energy storage architecture.
- Brief Research Activity Description: Study and design of security features inside a community energy storage that manage energy flows between homes in an energy District. Design of a multi-technology electronic board able to collect data coming from heterogeneous energy storage systems.

Regional Project POR: *Glamour: Green Learning and Adaptive Multi-interface iOt enabled devices throUgh social inteRactions. F*unded by Regione Calabria

From 2018 to 2020

- Project Title: GLAMOUR
- Research Activity title: Design of an integrated systems involving Cloud of Things and IoT devices to reduce energy consumptions in smart building.
- Principal Investigator (PI): Floriano De Rango, DIMES Dept., University of Calabria.
- Brief Research Activity Description: Design of an integrated platform and IoT devices able to reduce energy wastage inside home and building. The system needs to balance the energy saving with the comfort perception.

National Project: ***Rete d'Argento founded by Fondazione con il SUD***

From 2015 to 2016

- Project Title: Rete d'argento
- Research Activity title: Designing of a health care IoT device to track the movement and hearth beat of old people
- Local Coordinator: Floriano De Rango, DIMES Dept., University of Calabria.
- Brief Research Activity Description: Design of an innovative Iot device to track old people at home to detect falls and to monitor heart beat in order to advice medicals about some risk situations.

Regional Project: ***Smartel funded by Regione Calabria and Europe***

From 2014 to 2015

- Project Title: SMARTEL
- Research Activity title: Designing of a RFID systems to track cargo and mobile operators in the port area of Gioia Tauro (in Calabria).
- Local Coordinator: Floriano De Rango, DIMES Dept., University of Calabria.
- Brief Research Activity Description: Design of a smart RFID systems integrated with additional wireless connectivity to track cargo and mobile operators during operations and movement in the port area of Gioia Tauro.The system need to be robust getting advantage also of other wireless technology able to support self organization and detect possible incident of the terrestrial operators.

National Project: ***DOMUS Energia funded by Ministero dello Sviluppo Economico***

From 2013 to 2016

- Project Title: DOMUS Energy
- Research Activity title: Designing of an integrated systems to monitor and manage energy in a smart grid context (Smart District).
- Local Coordinator: Floriano De Rango, DIMES Dept., University of Calabria.
- Brief Research Activity Description: Design of a multi-technology gateway able to interoperate with different renewable energy sources and able to support different communication standard related to the building automation context.

National Project: ***DOMUS Sicurezza funded by Ministero dello Sviluppo Economico***

From 2013 to 2016

- Project Title: DOMUS Security
- Research Activity title: Designing of an integrated systems to monitor and detect anomaly situations inside Building.
- Local Coordinator: Floriano De Rango, DIMES Dept., University of Calabria.

- Brief Research Activity Description: Design of heterogeneous systems based on BLE beacon, cameras and movement sensors to track users inside Building in order to support them in dangerous situations providing customized alerting.

AUTOmobile Logistic MAnagement (AUTOMA) - CONCLUDED

- Brief Research Activity Description: This system, using the opportunities coming from IT technologies and telecommunications, allow reaching an optimization in the management processes of the automobile distribution flows in the port of Gioia Tauro.
- Research Fields: automated interchange management, optimization and image processing for best use of the interchange, improvement of the loading and unloading procedures of automobiles and automatic verification of damage; tracking and localization through adoption of RF systems for automatic identification of the automobiles and relative automatic methods of data acquisition; workflow management for evolved services.

logistic PROcess Management and Intelligence System (PROMIS) - CONCLUDED

- Brief Research Activity Description: The main goal of this project has been the development of an innovative system that led to an optimization of the management process of the maritime terminals, based on a vision directed at the integrated logistic processes that take place within the great port hubs connected to intermodal transportation networks.
- Research Fields: Integrated planning of ship docking, container loading and unloading and interchange management; revisitation/integration of the multiple study models of these present in literature and adjustment of the same to the conditions of tangible operativity of the port of Gioia Tauro, models for intermodal management and medium-long term strategies, routing management of the means used for interchange handling, information techniques and methodologies supporting logistic processes, information techniques and methodologies supporting decision processes, innovative software architectures.

Innovative Contact management based On novel integrated wireless Network Technologies and Crm Tools (I-CONTACT) - CONCLUDED

- Brief Research Activity Description: The industrial research project regards the creation of an advanced wired and wireless network infrastructure, endowed by services for multimedia support and advanced management of contents for telework in different geographical zones of the covered areas.
- Research Fields: wide-band wireless access, distributed self-organized systems, QoS, Voice over IP (VoIP), video on demand (IPTV).

National Project funded by AERSAT spa

From 2005 to 2006

- Project Title: Design of user terminals in Ka band (PROTEUS).
- Research Activity: Study on the antennas on user terminals, multi-mode modem and switching functionalities between regenerative and bent-pipe satellite.

Joint project between UNICAL and Compaq S.R.L. (Milan)

From 2001 to 2002

- Project objective: designing and development of a multi-channel adaptive Web access to the informative system of the UNICAL. In particular the development of techniques on user terminals COMPAQ iPAQ and informative system of teaching, on the basis of the available terminal, its visualising capacity and user access authorization.

European Project funded by ESA (European Space Agency)

From 2000 to 2001

- Project Title: EuroSkyWay Artes 3 Phase II
- Research Activity title: Ka-Band GEO System Technology and Demonstrator, Phase II
- Coordinator: Alenia Space, Rome, Italy.
- Brief Research Activity Description: This activity is the prosecution of the phase I of the same Project and in particular with reference to the designing of traffic management techniques at Satellite terminals, definition of MAC protocols, proposal of novel CAC/TRM strategies under real traffic conditions.

National Project (PRIN)

From 2000 to 2001

- Program Title: CDMA for Broadband Radiomobile Systems with Terrestrial-Satellite integration.
- Research Title: Adaptive Quality of Service (QoS) Guarantees under heterogeneous traffic (Mono e Multimedia) in Broadband Systems integrated with Terrestrial-Satellite Networks.
- Research Activity: (1) ad-hoc techniques for the traffic and mobility management (intra-handover and inter-segments handover); (2) definition of qualitative parameters based on the idea of adaptive QoS (soft-QoS); (3) integration of IP traffic in a system integrated with the satellite access.

Technological Transfer

Industrial Activities (third mission for the University)

He founded a Cultural Association 2012 to transfer technological knowledge on networking to students through an industrial formation on well-known brand such as Cisco, Huawei, Nortel and Alcatel Lucent Technologies.

He founded in 2012 the first Cisco Academy at the Engineering Faculty in Università della Calabria receiving for the next 2 years a recognition for the quality of the teaching and the number students involved in the technological transfer by Cisco.

He founded in 2010 a start-up called Spintel srl that received many awards in regional, national and European competition. He received award at Startup Competition, Intesa San Paolo National Competition, UpStart Paolo Traci Competition, Premio Nazionale Innovazione (PNI) competition, Swiss Commercial Chambers selection, Canadian Chamber selection, European Award by Intel in the Intel Business Challenge Competition (IBCE 2012) that ranked the most 20 competitive startups in Europe. The company work in the field of energy utilities, Internet of Things applied in the context of Smart Home and Building, Smart Cities and Agrifood.

He founded in 2014 the startup Thunderbit working in the field of the wireless connectivity and advanced services over broadband networks.

He founded the spin-off VONET in 2019 woking the field of the Artificial Intelligence and Voice enabled Automation Process. The basic idea of the company was presented 2014 in regional and national competition and it was ranked in the Startup Calabria (3rd position) and selected by Smau Milano (selected by the Milano organization) to be present in the SMAU 2015 and selected also for SMAU Berlino. The idea received the Lanmark and regional awards. The idea proposed an advanced voice assistant integrated in Internet of Things devices such as it is now proposed by Amazone Alexa, Google Assistant or Apple Siri.

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