



# Gladys DIAZ

*Associate Professor in Computer Science / USPN - France*

## Personal data

Family Name: **DIAZ SALAS.**

Borned at : **Maracay, Venezuela.**

Nationality: **French.**

Position: **Associate Professor-HDR, Habilité à diriger des Recherches**, Researcher member at L2TI, Laboratoire de Traitement et Transport de l'Information.  
USPN, Sorbonne Paris Nord University (Paris 13 University), Villetaneuse, France

CNU section **61ts, Computer engineering, automation, signal processing.**

## Education

June 28th **HDR: Habilité à diriger des Recherches**, *Pierre et Marie Curie University, Paris, France.*

*Vers une personnalisation des services réseau à la demande*

2000–2001 **PostDoc, Networks and Performance Teams, LIP6**, *Pierre et Marie Curie University, Paris, France.*

Computer networks, Multimedia applications, Internet architecture

1996-2000 **PhD in Computer Science, INPL**, *Institut National Polytechnique de Lorraine, Nancy, France.*

Conception de messagerie pour systèmes multimédia coopératifs. Application au système de Télémédecine DIATELIC

1995-1996 **Master in Computer Science, DEA Informatique degree**, *Henri Poincaré University, Nancy, France.*

Etude de la communication et de la synchronisation dans lessystèmes multimédia répartis

1990-1994 **Engineer degree, Computer Engineering**, *UCLA, Universidad Centro Occidental Lisandro Alvarado, Barquisimeto, Venezuela.*

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## Teaching Experience

- 2001–today **Associate Professor**, *Institut Galilée, USPN, Paris 13 University, Villetaneuse, France.*
- Computer networks, Network management, Virtual networks, Network architectures.
  - UML, Service Oriented Architectures (SOA), Information model, Quality of Service models (QoS)
  - C, C++, Unix, computer architecture.
- 2000–2001 **Assistant professor**, *René Descartes University, Paris, France.*
- Tutorial and practice on the analysis and design of information systems.
  - MERISE, SQL and UM.
- 1999–2000 **Assistant professor**, *Nancy II University, Nancy, France.*
- Tutorial and practice of the data processing.
  - Introduction to computer science.
- 1998–1999 **Assistant professor**, *ENSEM-INPL, National School of Electricity and Mechanics, Nancy, France.*
- Tutorial and practice of the algorithms and programming.
  - Languages C and Pascal.

## Academic and Administrative Responsibilities

- October 2020–today **Academic responsible of INFOA 1, SupGalilée, Specialized Engineer in Computer Science, apprenticeship program**, Galileo Institut, USPN, Paris 13 University.
- animation and the coordination of the pedagogical team,
  - programming and the general organization of the year,
  - participation and the presidency of the juries of the defenses
  - planning and the follow-up of the schedule of the year with the teachers
  - presidency of the jury of marks
- 2008–2009 **Academic responsible of RIM Master**, *Réseaux Internet et Multimédia*, Galileo Institut, USPN, Paris 13 University, Villetaneuse, France.
- 2005–2006 **Academic responsible of professional IRM Master**, *Image, Réseaux et Multimédia*, Galileo Institut, USPN, Paris 13 University, Villetaneuse, France.
- 2003–2005 **Academic responsible of DESS AIM**, *Application, Internet et Multimédia*, Galileo Institut, USPN, Paris 13 University, Villetaneuse, France.

These responsibilities included, among others, the following tasks:

- animation and the coordination of the pedagogical team,
- programming and the general organization of the year,
- the follow-up of the end-of-study internships
- participation and the presidency of the juries of the master defenses
- planning and the updating of the schedule of the year with the teachers
- presidency of the jury of marks
- the coordination and implementation/adaptation of new training packages
- transition from the DESS to the Master's program

Since January 2022 **In charge of Europe and the European Union, and Erasmus+ Coordinator, International Relation Department, USPN, Paris 13 University, Villetaneuse, France.**

- 2018 – 2019 **Representative of the Galileo Doctoral School, Campus France, Mexico tour to promote doctoral training in France**, USPN, Paris 13 University, Villetaneuse, France.
- 2017 – 2021 **Elected member of the Expert Committee, (College B), 61st section CNU, Galileo Institut, USPN, Paris 13 University, Villetaneuse, France.**

## Research Experience

- 2001–today **Researcher member, Networks team, L2TI laboratory, USPN, Paris 13 University, Villetaneuse, France.**
- Computer networks, Network management, Virtual networks, Network architectures.
  - Cloud Computing, network virtualization, dynamic network service deployment,
  - SOA and NaaS (Network as a Service) architectures, User-centric approach
  - SDN, NFV, 5G, VDTN
  - Information model, QoS model, ITS architectures and VDTN routing
- 2012–2020 **Associated Researcher member, AIRS team, INFRES department, Télécom ParisTech, Paris, France.**
- Visiting researcher, 6 months CRCT (September 2012 - February 2013).
  - Cloud Computing, network virtualization, dynamic service deployment,
  - NaaS (Network as a Service) architectures, User-centric approach
  - Information model, QoS model
  - ANR VERSO-2008/UBIS and OpenCloudware Projects
- 2000–2001 **Researcher member, Networks team, LIP6 laboratory, Pierre et Marie Curie University, Paris, France.**
- European project RTIPA (Real-Time Internet Platform Architecture).
  - QoS and Internet architecture for multimedia applications.
- 1996–2000 **Researcher member, TRIO team, INPL (Institut National Polytechnique de Lorraine), LORIA laboratory, Nancy, France.**
- Multimedia applications, Network architectures.
  - Cooperative applications.
- 1995–1996 **Researcher Internship, TRIO team, INPL (Institut National Polytechnique de Lorraine), LORIA laboratory, Nancy, France.**
- Multimedia applications.
  - Network architectures.

## Domain and Research Interests

Convergence between architectural and informational dimensions of the Services/Networks of the future, in special with the architectures and platforms in the Cloud, the dynamic orchestration and deployment of network services in virtualized environments (SDN/NFV). This work is concerning different uses cases: 5G network slicing, ITS architectures and VDTN routing, Smart cities and IoT platforms.

Future Network Architectures:	<i>Virtual networks, Network cloudification, Network slicing</i>
Network Management:	<i>Network information model, QoS modeling, Autonomic Networks</i>
Vehicular Architectures:	<i>Intelligent Transportation System (ITS), Vehicular Ad-hoc Networks (VANETs), Vehicular Delay Tolerant Network (VDTN)</i>
Recent Network Approaches:	<i>Service Oriented Architecture (SOA), Software-Defined Network (SDN), Network Function Virtualization (NFV)</i>
New uses cases:	<i>5G, Internet of Thing (IoT) and Smart Cities</i>

## Projects

2000-2001	ITEA/RTIPA:	<i>Real Time Internet Platform Architectures</i>
2003-2005	RNRT/AMARILLO:	<i>Modular architecture for multi-service environments active terminals</i>
2008-2010	Cap Digital Project:	<i>THD (Very High Speed)</i>
2008-2011	ANR VERSO-2008/UBIS:	<i>User Centric - ubiquity and Integrated Services</i>
2012-2015	OpenCloudware Project:	<i>NSF project (National Science Foundation for Digital Society)</i>
2018-2019	Project BQR (Bonus Qualité Recherche), LoRa @UP13:	<i>Experimental platform LoRaWAN of Paris 13 University</i>
2019-today	Project Plaine Commune and Rêve de scènes (RSU)	<i>Intelligence Ambiaante pour le bâtiment de demain: Rénovation innovante d'un bâtiment public d'enseignement supérieur.</i>
2020-today	CONACYT project Mexico	<i>AerialSyncs crowdsourcing: A new methodology to measure personal exposure to outdoor pollutants in urban micro-environments, submitted in collaboration with You-i Lab, IPICYT, Mexico</i>
In preparation	ECOS Nord Project Mexico	<i>Implementation of a Cloud/Fog platform for the collection and processing of measurements concerning indoor air pollution</i>

## Doctoral and Scientific supervision

2005–2021	<b>Master Internship supervision</b> , Galileo Institut, USPN, Paris 13 University, Villetaneuse, France.
	<ul style="list-style-type: none"> <li>○ 13 master internship supervision</li> <li>○ supervision at 100%</li> </ul>

- 2006–2021 **Doctoral supervision**, *Galileo Institut, USPN, Paris 13 University, Villetaneuse, France.*
- 7 doctoral supervision
  - supervision at 350%

## Languages

- Spanish Mother tongue  
French Bilingual  
English Advanced, C1

## Publications

- 3 International peer-reviewed journals
- 7 Book Chapters
- 37 International conferences with reading committee and published acts
- 6 Research Project Deliverables
- 6 Seminars scientific days

### Recent publications: 2018 to 2021

- [1] Mohammed Chahbar, Gladys Diaz, Abdulhalim Dandoush, Christophe Cérin, and Kamal Ghoumid. A comprehensive survey on the E2E 5g network slicing model. *IEEE Trans. Netw. Serv. Manag.*, 18(1):49–62, 2021.
- [2] Ogechi Akudo Nwogu, Gladys Diaz, and Marwen Abdennabi. Differential traffic qos scheduling for 5g/6g fronthaul networks. In *31st International Telecommunication Networks and Applications Conference, ITNAC 2021, Sydney, Australia, November 24-26, 2021*, pages 113–120. IEEE, 2021.
- [3] Mohammed Chahbar, Gladys Diaz, and Abdulhalim Dandoush. Inters: Towards inter-slice bandwidth resource sharing. In *22nd IEEE International Conference on High Performance Switching and Routing, HPSR 2021, Paris, France, June 7-10, 2021*, pages 1–6. IEEE, 2021.
- [4] Ogechi Akudo Nwogu, Gladys Diaz, and Marwen Abdennabi. An optimized approach to load balancing and resource usage in 5g multi-tiered cellular networks. In *Global Information Infrastructure and Networking Symposium, GIIS 2020, Tunis, Tunisia, October 28-30, 2020*, pages 1–5. IEEE, 2020.
- [5] Amal Kammoun, Nabil Tabbane, Gladys Diaz, Nadjib Achir, and Abdulhalim Dandoush. Proactive network slices management algorithm based on fuzzy logic system and support vector regression model. In Leonard Barolli, Peter Hellinckx, and Tomoya Enokido, editors, *Advances on Broad-Band Wireless Computing, Communication and Applications - Proceedings of the 14th International Conference on Broad-Band*

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*Wireless Computing, Communication and Applications, BWCCA 2019, Antwerp, Belgium, November 7-9, 2019, volume 97 of Lecture Notes in Networks and Systems, pages 386–397. Springer, 2019.*

- [6] Mohammed Chahbar, Gladys Diaz, and Abdulhalim Dandoush. Towards a unified network slicing model. In Hanan Lutfiyya, Yixin Diao, A. Nur Zincir-Heywood, Rémi Badonnel, and Edmundo R. M. Madeira, editors, *15th International Conference on Network and Service Management, CNSM 2019, Halifax, NS, Canada, October 21-25, 2019*, pages 1–5. IEEE, 2019.
- [7] Amal Kammoun, Nabil Tabbane, Gladys Diaz, Nadjib Achir, and Abdulhalim Dandoush. Inter-slice mobility management in the context of SDN/NFV networks. In Imen Jemili and Mohamed Mosbah, editors, *Distributed Computing for Emerging Smart Networks - First International Workshop, DiCES-N 2019, Hammamet, Tunisia, October 30, 2019, Revised Selected Papers*, volume 1130 of *Communications in Computer and Information Science*, pages 77–90. Springer, 2019.
- [8] Mohammed Chahbar, Gladys Diaz, Abdulhalim Dandoush, Christophe Cérin, and Kamal Ghoumid. NESSMA: network slice subnet management framework. In Antonio Cianfrani, Roberto Riggio, Rebecca Steinert, and Filip Idzikowski, editors, *10th International Conference on Networks of the Future, NoF 2019, Rome, Italy, October 1-3, 2019*, pages 54–57. IEEE, 2019.
- [9] Amal Kammoun, Nabil Tabbane, Gladys Diaz, Nadjib Achir, and Abdulhalim Dandoush. Dynamic handler framework for network slices management. In Dinko Begusic, Nikola Rozic, Josko Radic, and Matko Saric, editors, *2019 International Conference on Software, Telecommunications and Computer Networks, SoftCOM 2019, Split, Croatia, September 19-21, 2019*, pages 1–6. IEEE, 2019.
- [10] Ogechi Akudo Nwogu, Gladys Diaz, and Marwen Abdennabi. A combined static/dynamic partitioned resource usage approach for random access in 5g cellular networks. In Dinko Begusic, Nikola Rozic, Josko Radic, and Matko Saric, editors, *2019 International Conference on Software, Telecommunications and Computer Networks, SoftCOM 2019, Split, Croatia, September 19-21, 2019*, pages 1–6. IEEE, 2019.
- [11] Arslane Hamza Cherif, Khaled Boussetta, Gladys Diaz, and Fedoua Lahfa. Performance evaluation and comparative study of main VDTN routing protocols under small- and large-scale scenarios. *Ad Hoc Networks*, 81:122–142, 2018.
- [12] Arslane Hamza Cherif, Khaled Boussetta, Gladys Diaz, and Fedoua Lahfa. Geodtc: A new geographic routing protocol based on distance, time and custody transfer. In Andrzej M. J. Skulimowski, Zhengguo Sheng, Sondès Khemiri-Kallel, Christophe Cérin, and Ching-Hsien Hsu, editors, *Internet of Vehicles. Technologies and Services Towards Smart City - 5th International Conference, IOV 2018, Paris, France, November 20-22, 2018, Proceedings*, volume 11253 of *Lecture Notes in Computer Science*, pages 27–45. Springer, 2018.
- [13] Gladys Diaz, Michelle Sibilla, and Noemie Simoni. Towards information modeling for a qos-aware support in the lifecycle of virtual networks. In *28th International USPN, Sorbonne Paris Nord University – Villetaneuse, 93430 – France*

*Telecommunication Networks and Applications Conference, ITNAC 2018, Sydney, Australia, November 21-23, 2018*, pages 1–6. IEEE Computer Society, 2018.

- [14] Amal Kammoun, Nabil Tabbane, Gladys Diaz, and Nadjib Achir. Admission control algorithm for network slicing management in SDN-NFV environment. In Abdelaaziz El Hibaoui, Mohamed Essaaidi, and Youssef Zaz, editors, *6th International Conference on Multimedia Computing and Systems, ICMCS 2018, Rabat, Morocco, May 10-12, 2018*, pages 1–6. IEEE, 2018.