

# Rachit Agarwal

<https://rachit.gitlab.io>



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## CONTACT INFORMATION

[rachitag@iitk.ac.in](mailto:rachitag@iitk.ac.in)

## RESEARCH INTERESTS

My research interests mainly span the areas related to understanding **Network oriented aspects of Cyber Physical Systems**, especially relating to **Cyber-Security** and **Human Mobility**.

## EDUCATION

**University of Pierre and Marie Curie**, Paris, France **Oct 2010 - Sep 2013**

Ph.D. in Computer Science and Telecommunications

*Dissertation Topic:* “[Towards Enhancing Information Dissemination in Wireless Networks](#)”

*Grade:* “Très Honorable” (Highest Honors)

*Advisors:* Prof. Monique Becker and Dr. Vincent Gauthier

**University of North Carolina**, Charlotte, North Carolina, USA **Aug 2006 - May 2008**

Master of Science by *course work* in Computer Science (*specialization:* Networks)

**Jaypee Institute of Information Technology**, Noida, India **Jul 2002 - Jun 2006**

Bachelor of Technology in Information Technology

## PUBLICATIONS

### Journals

- (J9) (*Accepted*) **R. Agarwal**, S. Barve, S. Shukla, “[Detecting Malicious Accounts in Permissionless Blockchains using Temporal Graph Properties](#)”, Springer Applied Network Science Journal, 2020.
- (J8) B. Lefevre, **R. Agarwal**, V. Issarny, V. Mallet, “[Mobile Crowd-Sensing as a Resource for Contextualized Urban Public Policies: A Study using Three Use Cases on Noise and Soundscape Monitoring](#)”, Taylor & Francis: Cities & Health, pp. 1-19, 2019.
- (J7) G. Bajaj, **R. Agarwal**, P. Singh, N. Georgantas, V. Issarny, “[4W1H in IoT Semantics](#)”, IEEE Access, vol. 6, pp. 65488-65506, 2018.
- (J6) L. Sanchez, J. Lanza, J. Santana, **R. Agarwal**, P. Raverdy, T. Elsaleh, Y. Fathy, S. Jeong, A. Dadoukis, T. Korakis, S. Keranidis, P. O’Brien, J. Horgan, A. Sacchetti, G. Mastandrea, A. Fragkiadakis, P. Charalampidis, N. Seydoux, C. Ecrepont, M. Zhao, “[Federation of Internet of Things Testbeds for the Realization of a Semantically-Enabled Multi-Domain Data Marketplace](#)”, MDPI Sensors Journal, vol. 18, no. 10, pp. 3375:1-3375:32, 2018.
- (J5) J. Lanza, L. Sanchez, J. Santana, **R. Agarwal**, N. Kefalakis, P. Grace, T. Elsaleh, M. Zhao, E. Tragos, H. Nguyen, F. Cirillo, R. Steinke, J. Soldatos, “[Experimentation as a Service over Semantically Interoperable Internet of Things Testbeds](#)”, IEEE Access, vol. 6, pp. 51607-51625, 2018.
- (J4) R. Troncy, G. Rizzo, A. Jameson, O. Corcho, J. Plu, E. Palumbo, J. C. B. Hermida, A. Spirescu, K. Kuhn, C. Barbu, M. Rossi, I. Celino, **R. Agarwal**, C. Scanu, M. Valla, T. Haaker, “[3cixty: Building Comprehensive Knowledge Bases For City Exploration](#)”, Journal of Web Semantics, vol. 46-76, pp. 2-13, October 2017.
- (J3) **R. Agarwal**, V. Gauthier, M. Becker, T. Toukabri, H. Afifi, “[Large Scale Model for Information Dissemination with Device to Device Communication using Call Details Records](#)”, Computer Communications, vol. 59, pp. 1-11, March 2015.
- (J2) **R. Agarwal**, A. Banerjee, V. Gauthier, M. Becker, C. Yeo, B. Lee, “[Achieving Small World Properties using Bio-Inspired Techniques in Wireless Networks](#)”, The Computer Journal, vol. 55, no. 8, pp. 909-931, August 2012.
- (J1) A. Banerjee, **R. Agarwal**, V. Gauthier, C. Yeo, H. Afifi, B. Lee, “[A Self-Organization Framework for Wireless Ad Hoc Networks as Small Worlds](#)”, Transaction on Vehicular Technology, vol. 61, no. 6, pp. 2659-2673, July 2012.

## Book Chapter

- (B1) M. Serrano, A. Gyrard, M. Boniface, P. Grace, N. Georgantas, **R. Agarwal**, P. Barnaghi, F. Carrez, B. Almeida, T. Teixeira, P. Cousin, F. Le Gall, M. Bauer, E. Kovacs, L. Munoz, L. Sanchez, J. Soldatos, N. Kefalakis, I. Escárzaga, J. Cuenca, R. Steinke, M. Hauswirth, J. Kim and J. Yun, “Cross-Domain Interoperability Using Federated Interoperable Semantic IoT/Cloud Testbeds and Applications: The FIESTA-IoT Approach”, in Building the Future Internet through FIRE 2016 FIRE Book: A Research and Experiment based Approach (Eds: M. Serrano, N. Isaris, H. Schaffers, J. Domingue, M. Boniface, T. Korakis), River Publishers Series in Information Science and Technology, pp. 287-321, 2017.

## Conference/Workshop/Posters/Demo

- (C14) (*Submitted*) **R. Agarwal**, T. Thapliyal, S. Shukla, “Detecting Malicious Accounts showing Adversarial Behavior in Permissionless Blockchains”, IEEE International Conference on Blockchain and Cryptocurrency 2021.
- (C13) (*Conference*) **R. Agarwal**, A. Banerjee, “Infection Risk Score: Identifying the risk of infection propagation based on human contact”, 1st ACM SIGSPATIAL International Workshop on Modeling and Understanding the Spread of COVID-19, pp. 1-10, Seattle, USA, 3-7 Nov 2020.
- (C12) (*Poster*) **R. Agarwal**, S. Chopra, V. Christophides, N. Georgantas, V. Issarny, “Inferring Context of Mobile Data Crowdsensed in the Wild”, Netmob 2019, Oxford UK, 8-10 July 2019.
- (C11) (*Conference*) **R. Agarwal**, S. Chopra, V. Christophides, N. Georgantas, V. Issarny, “Detecting Mobile Crowdsensing Context in the Wild”, 20th IEEE International Conference on Mobile Data Management, pp. 170-175, Hong Kong, 10-13 June 2019.
- (C10) (*Poster*) **R. Agarwal**, N. Georgantas, V. Issarny, “Impact of Spatial Scale on Mobility Parameters”, Network Science (NetSci), Paris, 13-15 June 2018.
- (C9) (*Conference*) **R. Agarwal**, D. Farnandez, T. Elsaleh, A. Gyrard, J. Lanza, L. Sanchez, N. Georgantas, V. Issarny, “Unified IoT Ontology to Enable Interoperability and Federation of Testbeds”, 3<sup>rd</sup> IEEE WF-IoT, pp. 70-75, Reston, USA, 12-14 December 2016.
- (C8) (*Conference*) G. Bajaj, **R. Agarwal**, G. Bouloukakis, P. Singh, N. Georgantas, V. Issarny, “Towards Building Real-Time, Convenient Route Recommendation System for Public Transit”, 2<sup>nd</sup> International Smart City Conference, pp. 1-5, Trento, Italy, 12-15 September 2016.
- (C7) (*Conference*) G. Rizzo, R. Troncy, O. Corcho, A. Jameson, J. Plu, J. C. B. Hermida, A. Assaf, C. Barbu, A. Spirescu, K. Kuhn, I. Celino, **R. Agarwal**, C. Nguyen, A. Pathak, C. Scanu, M. Valla, T. Haaker, E. S. Verga, M. Rossi, J. L. R. Garcia, “3cixty@Expo Milano 2015: Enabling Visitors to Explore a Smart City”, Semantic Web Challenge in the 14th International Semantic Web Conference, Bethlehem USA, October 11-15, 2015.
- (C6) (*Conference*) G. Bouloukakis, **R. Agarwal**, N. Georgantas, A. Pathak, V. Issarny, “Leveraging CDR datasets for Context-Rich Performance Modeling of Large-Scale Mobile Pub/Sub Systems”, 11th IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob) 2015, pp. 596-603, Abu Dhabi, 19-21 Oct 2015.
- (C5) (*Poster*) G. Bouloukakis, N. Georgantas, **R. Agarwal**, A. Pathak, V. Issarny, “Towards Enabling Mobile Social Crowd-Sensing for Unstructured Transport Information Management: Performance Evaluation of Large-Scale End-to-End Publish/Subscribe Interaction”, in D4D Challenge special session (NetMob 2015), Boston, USA, 8-10 April 2015.
- (C4) (*Poster*) **R. Agarwal**, V. Gauthier, M. Becker, T. Toukabrigunes, H. Afifi, “Studying information dissemination in a D2D network using Call details records”, in The Digital Symposium: Grande échelle & Complexité, Institut Mines-Télécom Paris, 26-27 March 2014.
- (C3) (*Poster*) **R. Agarwal**, V. Gauthier, M. Becker, “Information Dissemination using Human Mobility in Realistic Environment (E-Inspire)”, in D4D Challenge special session (NetMob 2013), Boston, USA, 1-3 May 2013.
- (C2) (*Conference*) A. Banerjee, **R. Agarwal**, V. Gauthier, C. Yeo, H. Afifi, B. Lee, “Self-Organization of Wireless Ad Hoc Networks as Small Worlds Using Long Range Directional Beams”, in Proc. of the Workshop on Complex Networks and Pervasive Group Communication (IEEE GLOBECOM 2011), pp. 120-124, Houston, USA, 5-9 Dec 2011.
- (C1) (*Conference*) **R. Agarwal**, A. Banerjee, V. Gauthier, M. Becker, C. Yeo, B. Lee, “Self-organization of Nodes using Bio-Inspired Techniques for Achieving Small World Properties”, in Proc. of the Workshop on Complex Networks and Pervasive Group Communication (IEEE GLOBECOM 2011), pp. 89-94, Houston, USA, 5-9 Dec 2011.

## Preprints in arXiv

- (P3) **R. Agarwal**, T. Elsaleh, E. Tragos, “[GDPR-inspired IoT Ontology enabling Semantic Interoperability, Federation of Deployments and Privacy Preserving Applications](#)”, 2020.
- (P2) **R. Agarwal**, D. Farnandez, L. Sanchez, J. Lanza, N. Georgantas, V. Issarny, “[EnMonitor: Experimentation over Large-scale Semantically Annotated Federated IoT data environment](#)”, 2018.
- (P1) G.Bajaj, **R. Agarwal**, P. Singh, N. Georgantas, V. Issarny, “[A Study of Existing Ontologies in IoT-domain](#)”, 2017.

## Research Report

- (R26) **R. Agarwal** (Co-Author) et al., “[Deliverable D2.4: FIESTA-IoT Meta-Cloud Architecture V2](#)”, in F. Carrez (Eds.), project *FIESTA-IoT* deliverable, June 2018.
- (R25) **R. Agarwal** (Co-Author) et al., “[Deliverable D79: Sustainability and Business Plan V3](#)”, in B. Pickering, P. Grace (Eds.), project *FIESTA-IoT* deliverable, June 2018.
- (R24) **R. Agarwal** (Co-Author) et al., “[Deliverable D53: Experiments Implementation, Integration and Evaluation V2](#)”, in J. Martinez (Eds.), project *FIESTA-IoT* deliverable, June 2018.
- (R23) **R. Agarwal** (Co-Author) et al., “[Deliverable D54: Best Practices for Experiments Design and Conduction](#)”, in M. Zhao (Eds.), project *FIESTA-IoT* deliverable, April 2018.
- (R22) **R. Agarwal** (Main Author) et al., “[Deliverable D48: Infrastructure for Submitting and Managing IoT Experiments](#)”, in **R. Agarwal**, N. Georgantas, V. Issarny (Eds.), project *FIESTA-IoT* deliverable, November 2017.
- (R21) **R. Agarwal** (Co-Author) et al., “[Deliverable D36: Concept and Development for IoT Data Analytics and IoT Stream and Service Management](#)”, in A. Ahrabian, T. Elsaleh, F. Carrez (Eds.), project *FIESTA-IoT* deliverable, October 2017.
- (R20) **R. Agarwal** (Co-Author) et al., “[Deliverable D42: EaaS Model Specification and Implementation](#)”, in A. Kazmi, M. Serrano (Eds.), project *FIESTA-IoT* deliverable, June 2017.
- (R19) **R. Agarwal** (Co-Author) et al., “[Deliverable D52: Experiments Implementation, Integration and Evaluation](#)”, in F. Cirillo (Eds.), project *FIESTA-IoT* deliverable, January 2017.
- (R18) **R. Agarwal** (Co-Author) et al., “[Deliverable D35: Concept and Development for IoT Data Analytics and IoT Stream and Service Management](#)”, in A. Ahrabian, T. Elsaleh, F. Carrez (Eds.), project *FIESTA-IoT* deliverable, October 2016.
- (R17) **R. Agarwal** (Main Author) et al., “[Deliverable D32: Semantic Models for Testbeds, Interoperability and Mobility Support, and Best Practices](#)”, in **R. Agarwal**, N. Georgantas, V. Issarny (Eds.), project *FIESTA-IoT* deliverable, October 2016.
- (R16) **R. Agarwal** (Co-Author) et al., “[Deliverable D41: EaaS Model Specification and Implementation](#)”, in A. Gyrard, M. Serrano (Eds.), project *FIESTA-IoT* deliverable, September 2016.
- (R15) **R. Agarwal** (Main Author) et al., “[Deliverable D47: Infrastructure for Submitting and Managing IoT Experiments](#)”, in **R. Agarwal**, N. Georgantas, V. Issarny (Eds.), project *FIESTA-IoT* deliverable, September 2016.
- (R14) **R. Agarwal** (Main Author) et al., “[Deliverable D31: Semantic Models for Testbeds, Interoperability and Mobility Support, and Best Practices](#)”, in **R. Agarwal**, N. Georgantas, V. Issarny (Eds.), project *FIESTA-IoT* deliverable, May 2016.
- (R13) **R. Agarwal** (Co-Author) et al., “[Deliverable D71: Dissemination and Activity Report](#)”, in P. Grace (Eds.), project *FIESTA-IoT* deliverable, February 2016.
- (R12) **R. Agarwal** (Co-Author) et al., “[Deliverable D51: Experiment Design and Specification](#)”, in L. Sanchez, D. Gomez (Eds.), project *FIESTA-IoT* deliverable, February 2016.
- (R11) T. Haaker, **R. Agarwal**, M. Roelfsema, A. Jameson, M. de Reuver, “[Deliverable 15484-A1501: 3cixty Developers Community](#)”, EIT Digital *Urban Life and Mobility Activity* deliverable, December 2015.
- (R10) C. Barbu, **R. Agarwal**, M. Brambilla, O. Corcho, G. Cugola, P. Raverdy, M. Valla, E. Verga, F. Acero, D. Garijo, K. Kuhn, C. Nguyen, I. Perez, C. Scanu, A. Spirescu, “[Deliverable D09: Reference Architecture for Urban Information Spaces \(Report with Links to Software\)](#)”, EIT Digital project *3cixty* deliverable, December 2015.
- (R9) T. Haaker, M. Roelfsema, M. de Reuver, H. Bouwman, A. Jameson, R. Troncy, O. Corcho, F. Miedema, **R. Agarwal**, “[Deliverable D03: Business Modeling and Transferability](#)”, EIT Digital project *3cixty* deliverable, December 2015.
- (R8) **R. Agarwal**, C. Nguyen, C. Barbu, P. Raverdy, C. Scanu, C. Trichy, J. Koolwaaij, A. Jameson, C. Criminisi, A. Pathak, K. Kuhn, A. Spirescu, M. Bijlsma, “[Deliverable D02: 3cixty Platform and](#)

Showcase App for Milan (Report With Links to Software)”, EIT Digital project *3sixty* deliverable, December 2015.

- (R7) **R. Agarwal** (Co-Author) et al., “[Deliverable D23: Experiments, Tools and KPIs Specification](#)”, in B. Almeida, T. Teixeira (Eds.), project *FIESTA-IoT* deliverable, November 2015.
- (R6) **R. Agarwal** (Co-Author) et al., “[Deliverable D21: Stake Holders Requirements](#)”, in B. Almeida, T. Teixeira (Eds.), project *FIESTA-IoT* deliverable, August 2015.
- (R5) A. Pathak, C. Nguyen, **R. Agarwal**, L. Goix, “Deliverable AD0395: Stable, Testable Integrated Version of 3sixty Platform and Showcase App”, EIT Digital project *3sixty* deliverable, December 2014.
- (R4) **R. Agarwal**, C. Nguyen, A. Pathak, “Deliverable AD0391: Implementation of Methods for Answering Queries on the Basis of Data in Social Networks”, EIT Digital project *3sixty* deliverable, December 2014.
- (R3) **R. Agarwal**, C. Nguyen, A. Pathak, “Deliverable AD0390: Implementation of Methods for Augmenting Queries using Profile and Preference Information”, EIT Digital project *3sixty* deliverable, December 2014.
- (R2) **R. Agarwal**, C. Nguyen, A. Pathak, M. Bijlsma, J. Koolwaaij, “Deliverable AD0389: Implementation of Methods for Creating and Querying User Profiles”, EIT Digital project *3sixty* deliverable, December 2014.
- (R1) (*Senior Project*) **R. Agarwal**, P. Jaggi, N. Om, N. Jain, “Integrity and cryptographic algorithm in GPRS using FPGA technology”, May 2006.

### Software and Ontologies

- (S13) (*Github*) **R. Agarwal**, T. Elsaleh, E. Tragos, “[FIESTA-Priv Ontology](#)”, January 2020.
- (S12) (*Public*) **R. Agarwal** “[Metro Stations](#)”, May 2019.
- (S11) (*Github*) **R. Agarwal**, D. Gomez, T. Elsaleh, L. Sanchez, A. Gyrard, J. Lanza, “[FIESTA-IoT Ontology](#)”, November 2017.
- (S10) (*Github*) **R. Agarwal**, D. Gomez, T. Elsaleh, L. Sanchez, A. Gyrard, J. Lanza, “[M3-lite Taxonomy](#)”, November 2017.
- (S9) (*Github*) **R. Agarwal**, N. Georgantas, “[FIESTA-IoT Experiment Management Console](#)”, October 2017.
- (S8) (*Github*) **R. Agarwal**, N. Georgantas, “[FIESTA-IoT Experiment Execution Engine](#)”, October 2017.
- (S7) (*Public*) D. Gupta, **R. Agarwal**, “[Delhi Fishnet](#)”, January 2017.
- (S6) (*Public*) D. Gupta, **R. Agarwal**, “[Ile-de-France Fishnet](#)”, November 2016.
- (S5) (*Private*) **R. Agarwal**, “[SoundCity/Ambiciti-FIESTA-IoT Specific Data Annotation Tool](#)”, November 2016.
- (S4) (*Demo*) FIESTA-IoT Consortium, “[FIESTA-IoT Tools](#)”, February 2016.
- (S3) (*β Release*) G. Bajaj, **R. Agarwal**, G. Bouloukakakis, A. Pathak, P. Singh, “[MetroCognition App](#)”, February 2016.
- (S2) (*Github*) C. K. Nguyen, **R. Agarwal**, A. Pathak, “[QueryManager V2](#)”, December 2015.
- (S1) (*Github*) V. Gauthier, **R. Agarwal**, “[Simulation for Large Scale Model for Information Dissemination within Device to Device Network](#)”, Release V0.6, December, 2014.

### EXPERIENCE

#### Senior Project Executive Engineer Project Post-Doc Fellow

Sep 2020 - Present  
Oct 2019 - Sep 2020

- o *Interdisciplinary Center for Cyber Security and Cyber Defence of Critical Infrastructure, Indian Institute of Technology Kanpur, India*
  - My duties mainly include research on applying machine learning to detect **security** flaws in **cyber physical systems**. This work is in collaboration with Prof. Sandeep K. Shukla.

#### Post-Doc Researcher Engineer Expert and External Collaborator

Feb 2014 - May 2015,  
Jun 2015 - Dec 2018,  
Jan 2019 - Present

- o *Équipe MiMove, Inria-Paris, France*
  - My duties include project management, research, teaching and mentoring students, and soft-

ware development. I focused my research on understanding human mobility, data analysis, and semantic web. I led and managed several R&D based tasks related to projects like EU H2020 FIESTA-IoT project, Equipe Associate Sarathi, and EIT digital's 3cixty.

## Other Experience including Industry

o *Indian Institute of Technology, Kanpur, India* **Jun 2009 - Sep 2010**

- Senior Project Associate under Prof. Ajai Jain
- Part of *Design of a parallel processor for Natural Language Processing applications (NLP)* project. The project used Xilinx Toolkit and Spartan 3E FPGA.
- The Project was funded by Ministry of Communications and Information Technology, India.
- The NLP Applications studied were Machine Translation, Question Answering System, Text Summarizer and Information Retrieval.
- The project had three phases: Development of desktop application, development of web service and development of the processor. In the first phase, the implementation of the project was done using System C, C and Java. The web service, a second phase, was implemented using Java and the front-end was developed using C#. The third phase used VHDL.

o *Amko Software Solutions Inc., Charlotte, NC, USA* **Jul 2008 - Jun 2009**

*Client Red Bull Racing Team*

- Tasks involved: Developing software tools essential for communication with the race car and team members during the race. Provide network assistance. Perform data analysis.
- Languages used include C#, MATLAB and SQL. It used NASCAR Data Format.
- Projects included: Event Request, Race Car, Fuchsia Bovine, Web Key Generator, Offline Agent, Driver Feedback, Documenter.

STUDENTS, INTERNS  
AND ENGINEERS  
MENTORED

- o *Co-Supervision Post-Doc: Rohit Sachan (IIT Kanpur)* **Sept 2020 - Present**
- o *Co-Supervision Engineer: Tanmay Thapliyal (IIT Kanpur)* **Jul 2020 - Present**
- o *Co-Supervision M.Tech: Deepesh Chaudhari (IIT Kanpur)* **Jul 2020 - Present**
- o *Co-Supervision M.Tech: Banwari Lal (IIT Kanpur)* **Jul 2020 - Present**
- o *Co-Supervision M.Tech: Shikhar Barve (IIT Kanpur)* **Nov 2019 - June 2020**
- o *Intern: Ms. Shaan Chopra (IIIT Delhi)* **May 2018 - Jul 2018**
- o *Co-Supervision: Mr. Grégoire Follet (Ville d'Ermont)* **Oct 2017 - Dec 2018**
- o *Co-Supervision: Ms. Audrey Mukadi (Le Ministère de L'Intérieur)* **Oct 2017 - Dec 2018**
- o *Intern: Mr. Khushagra Singh (IIIT Delhi)* **Jun 2017 - Jul 2017**
- o *Co-supervision PhD: Mrs. Garvita Bajaj (IIIT Delhi)* **Sep 2015 - Sep 2016**  
Supervision in the context of Inria DRI/DST-CEFIPRA Sarathi Associate Team
- o *Intern PhD: Mrs. Garvita Bajaj (IIIT Delhi)* **May 2016 - Jul 2016**
- o *Co-supervision Engineer: Mr. Cong Kinh Nguyen (Inria Paris)* **Feb 2014 - Dec 2015**  
Supervision in the context of EIT Digital's 3cixty Project

TEACHING

- o (Co-lecturer) Telecom Bretagne on "**Smart Cities and IoT**" **Feb 2018**  
*Class strength: 39, Teaching hours: 4.5*
- o (Co-lecturer) A semester long "**Master SEMS (Systèmes Embarqués, Mobiles et Sûres)**" at CNAM, Paris, France **Jan - Apr 2018**  
*Class strength: 12, Teaching hours: 18*
- o (Self designed) A semester long "**Network Science**" course at Fundacao Getulio Vargas (FGV), Rio De Janerio, Brazil **Jun - Aug 2017**  
*Class strength: 5 (students) + 2 (professors), Teaching hours: 45, Feedback: 4.55/5*
- o (Co-lecturer) Lectures at Université de Versailles Saint Quentin-en-Yvelines as a part of the Master's Course "**Gestion de données ambiantes et internet des objets**".  
*Class strength: 15, Teaching hours: 9* **Dec 2015 - Apr 2016**  
*Class strength: 23, Teaching hours: 9* **Dec 2016 - Apr 2017**

INTERNSHIP/  
TRAINING

- o *Amko Software Solutions Inc., Charlotte, NC, USA* **Sep 2007 - Nov 2007**  
My duties involved: building website for the company and the sister company Synapse Solutions.
- o *SteelRX, New Delhi, India* **May 2004 - Jun 2004**  
My duties involved: performing research on market trends and developing a database model.

- o “MOOC Introduction to a Web of Linked Data” 21<sup>st</sup> Nov 2016 - 22<sup>th</sup> Jan 2017  
By: Fabien Gordon, Catherine Faron Zucker and Olivier Corby, Inria, France
- o “Network Science in Electrical Engineering and Computer Science” 2<sup>nd</sup> - 13<sup>th</sup> Jan 2012  
Winter School, IISc Bangalore, India
- o “NECSI Summer School”, Boston, USA 4<sup>th</sup> - 15<sup>th</sup> Jun 2012
- o “MOOC Introduction to Complexity”, 4<sup>th</sup> Feb - 30<sup>th</sup> May 2013  
By: Melanie Mitchell, SFI, USA
- o “MOOC Introduction to Dynamical Systems and Chaos”, 5<sup>th</sup> Jan - 15<sup>th</sup> Mar 2015  
By: David Feldman, SFI, USA

HONORS, AWARDS,  
RECOGNITIONS

- o **Travel Grant from French Consulate** in Rio de Janeiro for Teaching course at FGV, Rio De Janeiro, Brazil in 2017.
- o **Winner of Semantic Web Challenge** 2015.
- o Recipient of the **EDITE Doctoral fellowship** from University of Pierre and Marie Curie, Paris France, 2010 - 2013.
- o **Second prize** in a hackathon, “8 hour Start Up Competition”, hosted by the Department of Software and Information Systems at University of North Carolina at Charlotte, 11<sup>th</sup> April 2008.

RESEARCH  
FUNDING, GRANTS  
AND PROPOSALS

- o CO-PI, Sarathi Associate team. Funding Agency: Inria-DST, Partner: IIIT Delhi, 2015-2016
- o The Ph.D. activity helped me to contribute towards writing a 3 years travel grant proposal (called PICS, 2012) between NTU Singapore and Telecom SudParis. This proposal was accepted.
- o During the last year of my Ph.D. (in 2013), I wrote an ED-130 (Ecole Doctoral) Ph.D. proposal for Dr. V. Gauthier that was successfully defended by the hired candidate on 30th March 2016.

SEMINARS,  
INVITED TALKS  
AND  
DISSEMINATION  
ACTIVITY

- (T10) “[Extracting mobility information from CDRs and using it towards achieving enhanced dissemination in wireless networks](#)”, EMaP FGV seminar, 3 August 2017, Rio De Janeiro, Brazil.
- (T9) “[Simulating Large-Scale Participatory Sensed from Representative Set and its Use in Rapid Transit System](#)”, BIS 2016 workshop, 8-10 June, Paris, France.
- (T8) (*Dissemination activity*) “[FIESTA-IoT](#)”, SIDO Event, 6-7 April 2016, Lyon France.
- (T7) “[Achieving enhanced information dissemination on a large scale in wireless networks using mobility information extracted from Call Detail Records](#)”, Workshop Berkley-Inria-Stanford 2014, Paris France, 18th June 2014.
- (T6) (*Dissemination activity*) “[TravelDashboard Technology](#)”, From Innovation to Business event by EIT ICT Lab at Orange Labs Paris France, Feb 2014.
- (T5) “[Understanding human mobility using CDRs and using it towards enhancing information dissemination](#)”, Smart Networks Round table, India-France Summit, New Delhi, Oct 2013.
- (T4) “[Enhancing Information Dissemination in Device to Device Metapopulation using Human Mobility Trace and Beamforming](#)”, DigiCosme Research Day, Université Paris-Sud, Paris, July 2013.
- (T3) “Achieving Small World Properties using Bio-Inspired Techniques in Wireless Networks”, CNRS UMR 5157, SAMOVAR Lab talk, Telecom SudParis.
- (T2) “[Self-Organization of Wireless Ad Hoc Networks as Small Worlds Using Long Range Directional Beams](#)”, The Int. Conference on Wireless and Mobile Communication Networks, Paris, Oct 2011.
- (T1) “[Self-organization of Nodes using Bio-Inspired Techniques for Achieving Small World Properties](#)”, The Int. Conference on Wireless and Mobile Communication Networks, Paris, Oct 2011.

PROFESSIONAL  
SERVICES

- o **Training Workshops organized:** organized several workshops for new users of FIESTA-IoT infrastructure
- o **Panel Member:** Smart Networks **Round Table**, India-France Summit, New Delhi, Oct 2013
- o **Member:** ACM, Schema.org
- o **Topic Editor:** MDPI Sensors
- o **PC-CoChair:** Advanced and Trusted Internet of Things and Smart City Track in the 12th IEEE International Conference on Advanced and Trusted Computing (ATC), Beijing, China, Aug 2015.
- o **TPC member:** IEEE IC3 (2017-), IEEE SMARTCOMP (2018), IEEE FiCloud (2019-2020), Elsevier/Springer COCONet (2019-2020).
- o **Reviewer:** Computer Communication (COMCOM) 2012, IEEE VTC 2012 (Spring and Fall), The Computer Journal (2012), IFIP Wireless Days (2013), IEEE Communications Letters (2013, 2014, 2016, 2019), IEEE Transactions on Vehicular Technology (2014), Ad-hoc Networks (2014,



2016, 2019), IEEE IC3 (2015, 2016), IEEE Wireless Communications Magazine (2016), IEEE Internet of Things Journal (2016 - 2018), Journal of Internet Services and Applications (2017), IEEE Transactions on Networking (2017), IEEE Transactions on Service Computing (2018), ACM Transactions on Autonomous and Adaptive Systems (2018), Pervasive and Mobile Computing Journal (2018), IEEE Indicon (2018), Hindawi Wireless Communications and Mobile Computing Journal (2018), ITU Journal (2018), ACM Transactions of Internet of Things (2018-2020), IEEE Transactions in Knowledge and Data Engineering (2018), IEEE Access (2019), ACM Transactions on Spatial Algorithms and Systems (2019), MDPI Sensors (2019-2020), MDPI Future Internet (2019), MDPI Applied Sciences (2019-2020), IEEE Transactions on Network and Service Management (2019-2020), Springer Studies in Computational Intelligence (2020), IEEE PIMRC (2020), ACM Transactions on Cyber Physical Systems (2020), IEEE Transactions on Service Computing (2020).

- o **Sub-reviewer:** The Web Conference (2018), ACM ICDCS (2018), EDBT (2018)

## REFERENCES

To be provided upon request