

PROF. Smail TEDJINI

University Full Professor, Grenoble Institute of Technology, IEEE Senior Member

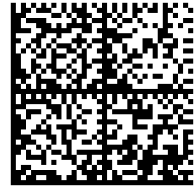
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Short résumé



Smail TEDJINI, Doctor in Physics from Grenoble University in 1985. He was Assistant Professor at the Electronics Dpt. of Grenoble Institute of Technology (Grenoble-inp) from 1981 to 1986, and Senior Researcher for the CNRS (Research French National Center) from 1986 to 1993. He became University Full Professor in 1993 and since 1996 he is Professor at the esisar, Embedded Systems Dpt. of Grenoble-inp. His main teaching topics concern Applied Electromagnetism, RadioFrequency, Wireless Systems and Optoelectronics. Now he has more than 30 years experience in academic education, Research and management of university affairs.

He served as coordinator and staff member in numerous academic programs both for education and research. He was coordinator for Ph.D. program, Master and Bachelor Programs for the Universities at Grenoble, some of these programs are under collaboration with international universities from Europe, USA, Canada, Brazil, Vietnam, Egypt, Maghreb ... He served as the Director of esisar, Dpt. of Grenoble-inp. He is involved in academic research supervision since 1982. His main topics in research are applied electromagnetism, modeling of devices and circuits at both RF and optoelectronic domains. Current research concerns wireless systems with specific attention to RFID technology and its applications.

He is the founder in 1996 and past Director of the LCIS Lab. Now, he is project manager within ORSYS group that he led until 2014 and founded 15 years ago. He supervised more than 35 PhD and he has more than 300 publications. He serves as Examiner/reviewer for tens Ph.D. degrees for universities in many countries (France, Germany, Finland, Spain, Ireland, Italy, Sweden, Vietnam, Australia, Singapore, India, Brazil, Egypt, Maghreb...).

He supervised tens of research contracts with public administrations and industries. He is Member of several TPC and serves as expert/reviewer for national and international scientific committees and conferences including journals such Piers, IEEE (MTT, AP, Sensors, MGWL), URSI. He served as project expert for French and international research programs ISO, ANR, OSEO, FNQRT, CNPQ...

He organized several conferences/workshops/Summer schools and was TPC chair/co-chair in numerous conferences. He was the General Chair of IEEE RFID-TA 2012. Senior Member IEEE, Past President and founder of the IEEE-CPMT French Chapter, Vice-President of IEEE Section France (2008-2014). He was elected as the Vice-Chair of URSI Commission D "Electronics & Photonics" in 2008. He served as the Chair of URSI Commission "D" for the triennium 2011-2014. In 2015 he was elected President of URSI-France

Educational Qualification

- **1985 - Grenoble Institute of Technology (Grenoble-INP)**
Docteur d'Etat Es-Sciences physique . Physics
Department of Electrical Engineering & Department of Physics
Thesis : Full Wave Electromagnetic Modeling and Simulation of Discontinuities for Planar Microwave Circuits as Finline Technology.
- **1982 - Grenoble Institute of Technology (Grenoble-INP)**
Doctorat 3ème cycle In Microwave. Thesis "Semiconductor based isolator and circulator for millimeterwave applications". Modeling and measurements.
- **1980 - Joseph Fourier University @ Grenoble**
Master in Microwave. Department of Physics
Master thesis : Semiconductor Non Reciprocal Devices at Mmwaves.

Professional Experience

Since 1996 – Present - Professor (ESISAR Dpt.) Grenoble Institute of Technology (Grenoble-INP)

- **Education:** Electromagnetism, RF, Antenna, Wireless Systems,
- **Research :** RF and optical Communication Systems, Wireless Circuits and Systems, RFID, Chipless RFID, Communicating clothes, UWB Antennas and Communications
- **Management :** Foundation of the LCIS Lab. Foundation of ORSYS Group
Director of the LCIS Lab.
Director of the Engineering School ESISAR
Leader of the research Group ORSYS for more than 8 years
Scientific supervisor and manager of tens of contracts with industries and public institutions
- **Expertise and Supervision :** Expert for ISO and many other national and international Scientific committees. Supervisor of more than 25 PhD.
- **Jury member/opponent** for tens of Ph.Ds in France and other countries : Singapore, Australia, Vietnam, India, Finland, Sweden, Spain, Italy, Ireland, Egypt, Tunisia, Brazil
General Chair and TPC chair/co-chair of several conferences
Vice-Chair of IEEE France Section
Chair of URSI-Commission D
Chair of URSI-France

Oct. 1993 – Oct. 1996 Professor at University Joseph Fourier, France

Lectures in : Electronics, RF, Physics of semiconductors,
Research : Optical microwaves, High speed optoelectronics, transmission and processing of optical signals.
Foundation of Bachelor curriculum and associated Lab. facilities
Supervision : Several master students and 3 PhD.
Management : Scientific Coordination of research contracts in France and Europe
Organisation of workshops and conference sessions

Oct 1986 – Sept 1993 : Senior Researcher at National Centre for Scientific Research (CNRS lab), France

Research in Optoelectronics and Microwave modulation of laser sources.
Management : Foundation of research group on Optical Microwaves.
Supervision : Several masters students and 7 PhD.
Management : Scientific Coordination of research contracts
Organisation of workshops and summer schools

Oct. 1982 – Sept. 1986 Assistant Professor, ENSERG at Grenoble-INP

Lectures: Electronics and Microwave
Research : Nonreciprocal Semiconductor Devices for Millimeterwave Applications. Applications to Isolators and circulators for Finline Technology.
Supervision : master students
Management : Scientific supervision of research contracts with public institutions

SELECTED INVITED CONFERENCES & WORKSHOPS

- «Radio Frequency Identification » @ 8th International Seminar on Electrical Metrology João Pessoa, Brazil June 17 - 19, 2009 <http://www.inmetro.gov.br/english/news/events/VIIIsemetro/program.asp>
- « Recent Advances in Antennas » @ Conférence ESC 2009, EMP, Mai 2009 Alger www.emp.edu.dz/Manif_Scientifique/ESC09/ESC09.htm
- «RFID, an old technology with brilliant future » @ Conférence ESC 2009, EMP, Mai 2009 Alger www.emp.edu.dz/Manif_Scientifique/ESC09/ESC09.htm
- «Advances in RFID tag design and applications ». @ IWNA 2009 Vung Tau, Viet Nam, Nov. 12 - 14, 2009 www.hcmint.edu.vn/index.php?Module...id... - Traduire cette page
- « Chipless tags, the RFID next Frontier », 20th Tyrrhenian Workshop on Digital Communications, Invited paper, Sardina (Italy), Sep. 2009. www.smart-systems-integration.org/.../20th-tyrrhe... - Traduire cette page
- "Chipless Tags for RF and THz Identification", 4th, EuCAP, Barcelona, Spain, 12-16 April 2010. <http://www.congrexevents.nl/docs/EUCAP2010/full-programme.pdf>
- « Towards THz Chipless Tags » @ IMRE A-Star, Singapore le 15 Jun 2010 <http://www.imre.a-star.edu.sg/events.php?id=E532R533>
- «Introduction to RFID, History, Principles, Applications and Regulations » @ LNT, Vietnam National University HoChiMinh 21 juin 2010 <http://www.hcmint.edu.vn/index.php?Module=Content&Action=view&id=201&Itemid=451>
- «La RFID état de l'art et perspectives » @ ENIT, Tunis, les 11 mars 2010 www.enit.rnu.tn/fr/manifestations/rfid2010/PROGRAMME.pdf
- «RFID tags : From Identification to Sensing» @ 11th Mediterranean Microwave Symposium :8-10 Sept. 2011 http://www.mms2011.com/index.php?option=com_content&view=article&id=48&Itemid=53
- « RFID Chipless Solutions » @ BIT's 1st Annual International Congress of u-World, Dalian, china Oct. 23-25, 2011 http://www.bitconferences.com/u-world2011/forum_2-t.asp
- «Advances in Chipless RFID », @ IPHC, Fusionopolis, A-Star, Singapore, 28 Oct 2011 http://easter.eventshub.sg/ems_wb_Details.aspx?CallID=28&EventID=458935
- «From Radiator to Signal Processing Antenna » @ Asia Pacific Microwave Conference - December 2011, Melbourne www.apmc2011.com/
- «Wireless, Batteryless and Chipless Solutions, Towards a Green Technology» @ The 13th Antennas and propagation Symposium (APSYM 2012) December 2012, Cochin <http://www.doe.cusat.edu/apsym/>
- « Advances in Coding Techniques for Chipless RFID Tags », Workshop W 21 @ EuMic Week 2013, Oct, Nuremberg http://www.eumweek.com/archive/eumweek2013/2013/docs/workshops_monday.pdf
- « Non linear Nonlinear behavior and characteristics of RFID chips » @ Workshop WFC, IEEE-IMS, May 2015 Phoenix, Arizona, <http://www.ims2015.org/workshops>
- « Advances in RFID, Towards Augmented Tags » @ Campus Universitário Lagoa Nova. Natal, Rio Grande do Norte Brazil. August 2015, <https://meetings.vtools.ieee.org/m/35471>
- « Advances in UHF RFID Tags » @ IEEE AP/ED/MTT Oct. 2015 Aalto Univ. Helsinki, Finland
- « Towards Augmented Tags » CTTC, Castelldefels, Cataluna, Spain Oct. 2015 <https://meetings.vtools.ieee.org/m/33249>
- « RFID, State of the art and future directions», COST IC1301 Wipe School, Valence Oct. 2015 <http://www.cost-ic1301.org/files/WipeSchoolValenceV00.pdf>
- « Exploitation of Nonlinear Characteristics of RFID Chips for Energy Harvesting» @ Workshop « Eu. Initiatives to Develop Wireless Power Supply for Sensor Node Evolution » IEEE RWW, Austin Jan 2016. <http://radiowirelessweek.org/>
- « Chipless RFID, State of the art and Current Developments », COST IC1301 Wipe School, Bologna, Apr 2016 <http://www.cost-ic1301.org/files/Preliminary%20Program.pdf>

CONFERENCE COMMITTEES

- **TPC Member of** : URSI-GASS 2008, URSI-GASS 2011, URSI-GASS 2014, Eucap'09, Eucap10, Eucap11, Eucap12, Eucap13, Eucap14, Semetro 2009, IEEE-RFID 2009, IEEE-RFID 2010, IEEE-RFID 2011, IEEE-RFID 2012, IEEE-RFID2013, IEEE-RFID 2014, IEEE-RFID 2015, PIERS2011, MMS2011, IMOC2011, APMC11, IEEE-RFIDTA 2010, IEEE-RFIDTA 2011, IEEE-RFID-TA 2013, RFID-TA 2014,
- **Session Chair** URSI-GASS 2008, Semetro 2009, WSIM10, URSI-GASS 2011, IEEE-RFID 2009, IEEE-RFID 2010, IEEE-RFID 2011, IEEE-RFIDTA 2010, bit's 1st world congress u-world, APMC 2011, IEEE-RFID-TA 2012, URSI-GASS 2014, IMS 2015
- **TPC Chair** : WSIM10, IEEE-RFID 2011, URSI-GASS 2014 (commission D)
- **General Chair of IEEE RFID-TA 2012**

SCIENTIFIC PRODUCTION 2011-2015

I have more than 300 publications, 2/3 are international conferences and journal papers. Most of the publication are within IEEE, URSI and SPIE. 75% of my publications are in RF and microwave domains in particular RFID. 25% are in Optics and Optoelectronics domains.

Below I provide a list of major publication in the last four years 2011-2015.

1. JOURNAL PAPERS

- [1] Hotte, D.; Duroc, Y.; Siragusa, R.; Tedjini, S., "A Method to Characterize the Frequency-Dependent Structural Coefficient of Antennas: Application to Millimeter Wave Identification," in *Antennas and Wireless Propagation Letters*, IEEE , vol.15, no., pp.170-173, 2016
- [2] Andia Vera, G.; Nawale, S.D.; Duroc, Y.; Tedjini, S., "Read Range Enhancement by Harmonic Energy Harvesting in Passive UHF RFID," in *Micr. and Wire. Components Lett.*, IEEE , vol.25, no.9, pp.627-629, Sept. 2015
- [3] Hotte, D.; Siragusa, R.; Duroc, Y.; Tedjini, S., "Radar cross-section measurement in millimetre-wave for passive millimetre-wave identification tags," in *Micr., Antennas & Propagation, IET* , vol.9, no.15, pp.1733-1739, 12 10 2015
- [4] Unnikrishnan, D.; Kaddour, D.; Tedjini, S.; Bihar, E.; Saadaoui, M., "CPW-Fed Inkjet Printed UWB Antenna on ABS-PC for Integration in Molded Interconnect Devices Technology," in *Antennas and Wireless Propagation Letters*, IEEE , vol.14, no., pp.1125-1128, 2015
- [5] Andia Vera, G.; Duroc, Y.; Tedjini, S., "Third Harmonic Exploitation in Passive UHF RFID," in *Microwave Theory and Techniques*, IEEE Transactions on , vol.63, no.9, pp.2991-3004, Sept. 2015
- [6] Andia Vera, G.; Allane, D.; Georgiadis, A.; Collado, A.; Duroc, Y.; Tedjini, S., "Cooperative Integration of Harvesting RF Sections for Passive RFID Communication," in *Microwave Theory and Techniques*, IEEE Transactions on , vol.63, no.12, pp.4556-4566, Dec. 2015
- [7] Hotte, D.; Siragusa, R.; Duroc, Y.; Tedjini, S., "Directive and high-efficiency slotted waveguide antenna array for V-band made by wire electrical discharge machining," in *Electronics Letters* , vol.51, no.5, pp.380-382, 3 5 2015
- [8] T Andriamiharivolamena, P Lemaître-Auger, S Tedjini, F Tirard « Compact planar monopole antenna for wearable wireless applications » *Comptes Rendus Physique* 16 (9), 851-861, 2015
- [9] DS Nguyen, NN Le, TP Lam, E Fribourg-Blanc, MC Dang, S Tedjini « Development of novel wireless sensor for food quality detection » *Advances in Natural Sciences: Nanoscience and Nanotechnology* 6 (4), 045004, 2015
- [10] S Tedjini, NC Karmakar « Special issue on chipless technologies » *Wireless Power Transfer* 2 (02), 61-61, 2015
- [11] O Boularess, H Rmili, T Aguili, S Tedjini « Analysis of electromagnetic signature of Arabic alphabet as RF elementary coding particles » *Wireless Power Transfer* 2 (02), 97-106, 2015
- [12] GA Vera, Y Duroc, S Tedjini « Analysis and exploitation of harmonics in wireless power transfer (H-WPT): passive UHF RFID case » *Wireless Power Transfer* 1 (02), 65-74, 2014
- [13] MC Dang, DS Nguyen, TMD Dang, S Tedjini, E Fribourg-Blanc « Design and testing of RFID sensor tag fabricated using inkjet-printing and electrodeposition » *Advances in Natural Sciences: Nanoscience and Nanotechnology* 5 (2), 0250124, 2014
- [14] S. Tedjini, P.Lemaitre-Auger, T. Andriamiharivolamena, F. Tirard, C. Mercier « Developing Wearable Antennas For Military Applications » <http://electronicsmilitarydefense.epubxp.com/i/350588> Magazine Article | July 24, 2014
- [15] Andia Vera, G.; Duroc, Y.; Tedjini, S., "RFID Test Platform: Nonlinear Characterization," in *Instrumentation and Measurement*, IEEE Transactions on , vol.63, no.9, pp.2299-2305, Sept. 2014
- [16] DT Nguyen, R Siragusa, S Tedjini « Beam steering patch antenna using reactive loading and Yagi-antenna concept» *Microwave and Optical Technology Letters* 57 (2), 417-421, 2015
- [17] Nair, R.S.; Perret, E.; Tedjini, S.; Baron, T., "A Group-Delay-Based Chipless RFID Humidity Tag Sensor Using Silicon Nanowires," in *Antennas and Wireless Propagation Letters*, IEEE , vol.12, no., pp.729-732, 2013
- [18] Andia Vera, G.; Duroc, Y.; Tedjini, S., "Analysis of Harmonics in UHF RFID Signals," in *Microwave Theory and Techniques*, IEEE Transactions on , vol.61, no.6, pp.2481-2490, June 2013
- [19] Vena, A.; Perret, E.; Tedjini, S.; Tourtollet, G.E.P.; Delattre, A.; Garet, F.; Boutant, Y., "Design of Chipless RFID Tags Printed on Paper by Flexography," in *Ant. and Prop*, IEEE Trans on , vol.61, no.12, pp.5868-5877, Dec. 2013
- [20] S Tedjini, N Karmakar « Chipless RFID, an emerging technology » *annals of telecommunications-Annales des télécommunications* 68 (7-8), 359-359, 2013
- [21] S Tedjini, N Karmakar, E Perret, A Vena, R Koswatta « Hold the Chips: Chipless Technology, an Alternative Technique for RFID » *Microwave Magazine*, IEEE 14 (5), 56-65, 2013
- [22] RS Nair, E Perret, S Tedjini « Group delay modulation for pulse position coding based on periodically coupled C-sections » *annals of telecommunications-Annales des télécommunications* 68 (7-8), 447-457, 2013
- [23] A Vena, E Perret, S Tedjini « Design rules for chipless RFID tags based on multiple scatterers » *annals of telecommunications-Annales des télécommunications* 68 (7-8), 361-374, 2013
- [24] D Nguyen, TT Pham, EF Blanc, NN Le, CM Dang, S Tedjini «RFID beefs up» *Electronics Letters* 49 (25), 2013
- [25] D Nguyen, TT Pham, EF Blanc, NN Le, CM Dang, S Tedjini « Approach for quality detection of food by RFID-based wireless sensor tag » *Electronics Letters* 49 (25), 1588-1589, 2013
- [26] D Abed, S Redadaa, S Tedjini « CLOSED-FORM PDF FOR MULTIUSER TR-UWB SYSTEMS UNDER GAUSSIAN NOISE AND IMPULSIVE INTERFERENCE. » *Pro. in Electro. Res C* . 2013, Vol. 40, p175-186. 12p.

- [27] RS Nair, E Perret, S Tedjini « A TEMPORAL MULTI-FREQUENCY ENCODING TECHNIQUE FOR CHIPLESS RFID BASED ON C-SECTIONS. » Progress in Electromagnetics Research B . 2013, Vol. 49, p107-127. 21p.
- [28] H Halheit, A Vander Vorst, S Tedjini, R Touhami « Flexible Dual-Frequency Applicator for Local Hyperthermia » International Journal of Antennas and Propagation Volume 2012, Article ID 389214, 7 pages
- [29] A. Vena, E. Perret, S. Tedjini, " High Capacity Chipless RFID Tag Insensitive to the Polarization", Antennas and Propagation, IEEE Transactions on 60 (10), 4509-4515, 2012
- [30] A. Vena, E. Perret, S. Tedjini, "A Fully Printable Chipless RFID Tag With Detuning Correction Technique" IEEE Microwave and Wireless Components Letters, Vol. 22, Issue 4, pp. 209 – 211, mar. 2012.
- [31] E. Perret, S. Tedjini, and R. Nair, "Design of Antennas for UHF RFID Tags," Proceedings of the IEEE, vol. 100, pp. 2330 - 2340, 2012.
- [32] A. Vena, E. Perret, and S. Tedjini, "Design of Compact and Auto Compensated Single Layer Chipless RFID Tag," IEEE Transactions on Microwave Theory and Techniques, vol. 60, pp. 2913 – 2924, September 2012.
- [33] A Vena, E.Perret, S Tedjini « Chipless RFID tag using hybrid coding technique » IEEE Transactions on Microwave Theory and Techniques, vol. 59, no. 12 PART 2, pp. 3356–3364, 2011
- [34] H. Chaabane, E.Perret, S Tedjini « A methodology for the design of frequency and environment robust UHF RFID tags » IEEE Transactions on Antennas and Propagation, vol. 59, no. 9, pp. 3436–3441, 2011
- [35] A Pouzin, TP Vuong, S Tedjini, J Perdereau « Automated bench test for UHF RFID tags measurement in operational environment » International Journal of Microwave and Wireless Techn. 3 (04) August 2011, pp 415-422
- [36] R. Siragusa, P Lemaitre-Auger, S Tedjini « Tunable Near-Field Focused Circular Phase-Array Antenna for 5.8-GHz RFID Applications » IEEE Antennas and Wireless Propagation Letters, vol. 10, pp. 33–36, 2011
- [37] M Bernier, F Garet, E Perret, L Duvillaret, S Tedjini « Terahertz encoding approach for secured chipless radio frequency identification » Applied Optics 50 (23), 4648-4655
- [38] R. Siragusa, E. Perret, H. V. Nguyen, P. Lemaitre-Auger, S. Tedjini and C. Caloz, "Control of the Sensitivity of CRLH Interdigital Microstrip Balanced Structures using a Co-Design Genetic ...". Applied Physics A, Sp. Issue: "Advanced Metamaterial & Photonic", Vol. 102, Jan. 2011
- [39] I. Kharrat, Y. Duroc, G. Andia Vera, M. Awad, S. Tedjini, and T. Aguilí, "Customized RSSI Method for Passive UHF RFID Localization System," Journal of Telecommunications, vol. 10, pp. 5-9, 2011.
- [40] E Perret, M Hamdi, A Vena, F Garet, M Bernier, L Duvillaret, S Tedjini « RF and THz identification using a new generation of chipless RFID tags » Radioengineering20, 380-386, june 2011

2. BOOK CHAPTER

- [1] S. Tedjini, E. Perret, V. Deepu, M. Bernier, "Chipless tags, the RFID next Frontier ", Chapitre d'ouvrage "Internet of Things", publié par Springer en 2010, ISBN 978-1-4419-1673-0
- [2] P-H Thevenon, O. Savry, S.Tedjini, R. Malherbi-Martins " Attacks on the HF physical layer of contactless and RFID systems" : Current Trends and Challenges in RFID, ISBN 978-953-307-356-9 Publisher: InTech, July 2011
- [3] A.I. Najam, Y. Duroc, S. Tedjini, "Multiple-input multiple-output antennas for ultra wideband communications," book chapter of "Ultra Wideband: Current Status and Future Trends", edited by M. Matin, InTech, 2012, ISBN: 979-953-307-809-9.
- [4] S.Tedjini, E.Perret, A. Vena, D. Kaddour " Mastering the electromagnetic signature of chipless RFID system", in «Chipless and Conventional RFID : Systems for Ubiquitous Tagging » ISBN13: 9781466616165 <http://www.igi-global.com/book/chipless-conventional-radio-frequency-identification/61620>

3. PATENTS

- [1] E. Perret, S.Tedjini, V.Deepu, F.Garet, L.Duvillaret « Etiquette RFID Passive sans puce » Brevet d'invention Date de dépôt : 11 fev 2010, Pays : France, numéro : 10/50971, N. REF : B100087
- [2] E.Perret, H.Chaabane, S.Tedjini, « RFID Tool » Dépôt du logiciel auprès de l'agence pour la protection des programmes (APP), Inter Deposit Digital Number : IDDN.FR.001.390041.000S.C.2010.000.20600
- [3] Etienne Perret, Arnaud Vena, Smail Tedjini «SYSTEME D'IDENTIFICATION PAR FREQUENCES RADIO» Date de dépôt : 27 juin 2012, Pays : France, numéro : 12/56109, N. REF : B11824 FR
- [4] E Perret, S Tedjini, D Vasudevan Nair, F Garet, L Duvillaret, AM Vena « CHIPLESS PASSIVE RFID TAG » US Patent 20,130,015,248
- [6] S Tedjini, Y.Duroc, G Andia-Vera, C.Loussert, « RFID communication system » BNT216062US00, Dépôt PCT 2013
- [7] S Tedjini, P. Lemaitre-Auger, F.Tirard, T. Andriamiharivolamea «Groupe d'antennes pour le contrôle de la distribution spatiale du champ électromagnétique» le 06/12/2013 : Dépôt n° 13 – 62218.
- [8] S Tedjini, P. Lemaitre-Auger, F.Tirard, T. Andriamiharivolamea «DISPOSITIF DE RACCORDEMENT D'UNE ANTENNE IMPRIMEE SUR UN SUPPORT SOUPLE A UN CABLE COAXIAL» 15/05/2014 : Dépôt n° 14 – 54336

4. INTERNATIONAL CONFERENCES

- [1] S Tedjini, GA Vera, Z Marcos, RCS Freire, Y Duroc "Augmented RFID tags" IEEE Radio and Wireless Week Austin, 23-27 January 2016
- [2] Andia Vera, G.; Georgiadis, A.; Duroc, Y.; Tedjini, S., "Cooperative integration of harvesting sections for passive RFID communication," in Microwave Symposium (IMS), 2015 IEEE MTT-S Int. , vol., no., pp.1-3, 17-22 May 2015

- [3] Araujo Rodrigues, R.A.; Candeia Gurjao, E.; de Assis, F.M.; Tedjini, S.; Perret, E., "Group delay analysis of folded multi-layer C-sections used in encoding of chipless RFID tag," in Microwave and Optoelectronics Conference (IMOC), 2015 SBMO/IEEE MTT-S International , vol., no., pp.1-5, 3-6 Nov. 2015
- [4] Andia-Vera, G.; Duroc, Y.; Tedjini, S., "Toward augmented UHF RFID passive tags," in Radio Science Conference (URSI AT-RASC), 2015 1st URSI Atlantic , vol., no., pp.1-1, 16-24 May 2015
- [5] Rodrigues, R.A.A.; Candeia Gurjao, E.; de Assis, F.M.; Palazzi, V.; Alimenti, F.; Roselli, L.; Mezzanotte, P.; Tedjini, S., "Design of planar resonators on flexible substrate for chipless tags intended for crack sensing," in Microwave Symposium (MMS), 2015 IEEE 15th Mediterranean , vol., no., pp.1-4, Nov. 30 2015-Dec. 2 2015
- [6] Son Dat Nguyen; Ngan Nguyen Le; Phat Tan Lam; Fribourg-Blanc, E.; Chien Mau Dang; Tedjini, S., "A wireless sensor for food quality detection by UHF RFID passive tags," in Advanced Technologies for Communications (ATC), 2015 International Conference on , vol., no., pp.258-263, 14-16 Oct. 2015
- [7] Dat Nguyen, Son; Le, Ngan Nguyen; Lam, Phat Tan; Fribourg-Blanc, Eric; Dang, Chien Mau; Tedjini, Smail, "Modeling of antenna geometry and thickness optimization for wideband UHF RFID tag," in Advanced Technologies for Communications (ATC), 2015 International Conference on , vol., no., pp.528-533, 14-16 Oct. 2015
- [8] GA Vera, Y Duroc, S Tedjini "Toward augmented UHF RFID passive tags" Radio Science Conference (URSI AT-RASC), 2015 1st URSI Atlantic, 1-1
- [9] Vena, A.; Perret, E.; Sorli, B.; Tedjini, S., "Theoretical study on detection distance for chipless RFID systems according to transmit power regulation standards," in Antennas and Propagation (EuCAP), 2015 9th European Conference on , vol., no., pp.1-4, 13-17 April 2015
- [10] Daiki, M.; Perret, E.; Tedjini, S., "Design of near field UHF RFID reader antenna integrated into clothing," in RFID Technology and Applications Conference (RFID-TA), 2014 IEEE , vol., no., pp.261-265, 8-9 Sept. 2014
- [11] Hotte, D.; Siragusa, R.; Tedjini, S.; Duroc, Y., "A new concept of UHF RFID tag for metallic object tracking with embedded cavity," in RFID Tech. and Applications Conf (RFID-TA), 2014 IEEE , pp.237-240, 8-9 Sept. 2014
- [12] Andia Vera, G.; Nawale, S.D.; Duroc, Y.; Tedjini, S., "Optimum integration of passive UHF RFID tag-rectenna in a single feed dual band antenna," in General Assembly and Scientific Symposium (URSI GASS), 2014 XXXIth URSI , vol., no., pp.1-4, 16-23 Aug. 2014
- [13] Vena, A.; Perret, E.; Sorli, B.; Tedjini, S., "Toward reliable readers for chipless RFID systems," in General Assembly and Scientific Symposium (URSI GASS), 2014 XXXIth URSI , vol., no., pp.1-4, 16-23 Aug. 2014
- [14] Halheit, H.; Touhami, R.; Vorst, A.V.; Tedjini, S.; Tan Phu Vuong, "Effect of microstrip rectangular radiator width on SAR for local hyperthermia," in Antenna Measurements & Applications (CAMA), 2014 IEEE Conference on pp.1-3, 16-19 Nov. 2014
- [15] Vera, G.A.; Nawale, S.D.; Tedjini, S.; Duroc, Y., "Passive UHF RFID backscattering for indoor lighting control," in India Conference (INDICON), 2014 Annual IEEE , vol., no., pp.1-4, 11-13 Dec. 2014
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Ph.D. Supervision

Below is the list of the thesis I supervised.

N°	Student	Titre de la thèse	Year of completion
1	Eric IMBERT	Etude et réalisation de coupleurs hyperfréquence en technologie finline	1988
2	Melle Nahla DAOUD	Modélisation des lignes intégrées micro-ondes prenant en compte l'épaisseur et la conductivité finie des métallisations	1990
3	Melle Geneviève MAZE	Formulation de la méthode spectrale pour l'analyse de structures planaires multicouches, anisotropes, a tenseurs de permittivité et de perméabilité diagonaux. Application aux lignes de transmission pour caractérisation de matériaux anisotropes	1991
4	Mohamed MABROUK	Caractérisation de lignes monolithiques sur GaAs pour circuits microondes : application à l'extraction des paramètres intrinsèques de structures MMICs en monture de test par auto-calibrage TRL de 2 à 18 GHz	1991
5	Diaa Abdel-Maguid Mohamed Khalil,	Les modes rayonnés en optique intégrée : analyse et applications	1993
6	Pierre CHAZAN	1993Etude et réalisation d'un modulateur hyperfréquence de lumière sur niobate de lithium en technologie ligne à ailettes	1993
7	Ingo FADERL	Etude et réalisation d'un modulateur électro-optique utilisant des polymères non linéaires dans un circuit optique intégrée sur silicium	1994
8	Anh HO QUOC	Étude et réalisation de dispositifs tout-optiques pour le traitement de signaux rapides	1996
9	Alexis LESTRA	Contribution a l'étude de composants integres de type laser / modulateur pour transmissions optiques a haut débit	1996
10	Jean-Michel BRUNEAU	Etude et réalisation de disques optiques re-inscriptibles à changement de phase	1998
11	Alain MORAND	Conception et réalisation d'un commutateur et d'un polariseur en optique intégrée sur verre avec un polymère électro-optique	1998
12	Didier SALUEL	Enregistrement ultra haute densite sur un media a changement de phase par micro-pointes conductrices	1999
13	Giovanni CERVELLI	Analyse, caractérisation et optimisation d'une liaison optique analogique pour l'extraction des données d'un détecteur de particules	1999
14	Melle Célia SANCHEZ-PEREZ	Modélisation des lignes intégrées micro-ondes prenant en compte l'épaisseur et la conductivité finie des métallisations	2000
15	Loys COURTOIS	Détermination de modes électromagnétiques de guides d'ondes corrugués sur-dimensionnés sur l'installation de chauffage des électrons du tokamak tore supra	2001
16	Robin PERRIER	Etude et réalisation de disques optiques multi-niveaux inscriptibles une fois	2003
17	Laurent GUILLOTON	Contribution au développement d'une CAO pour les circuits optiques : Mise en œuvre et application aux circuits passifs	2005
18	Delphine BECHEVET	Contribution au développement de tag RFID, UHF et microondes, sur matériaux plastiques	2005
19	Sébastien MONTUSCLAT	Etude d'antennes intégrées silicium dans la bande 40-80 Ghz, simulation, développement et caractérisation hyperfréquence	2005
20	Mathieu HUCHARD	Caractérisation et conception d'antennes isotropes miniatures pour objets communicants	2007
21	Yvan DUROC	Contribution au développement de modèles orientés système pour les antennes des communications ultra large bande	2007
22	Rami KHOURI	Modélisation comportementale en VHDL-AMS du lien RF pour la simulation et l'optimisation des systèmes RFID UHF et micro-ondes	2007
23	Yves JOANNON	Qualification et génération automatique de stimuli pour le test de systèmes sur puces (SoC) analogiques mixtes et RF	2008
24	Fabrice ROUDET	Communication radiofréquence à très basse consommation d'énergie dans un environnement hautement perturbé	2008
25	Romain SIRAGUSA	Etude de nouvelles fonctions radiofréquences à base d'antennes à onde de fuite composite main droite/gauche	2009
26	Ali Imran NAJAM	Multiple-input multiple-output antennas for ultra wideband communications	2010

27	Emmanuel DREINA	Conception, optimisation et intégration RF d'un système d'antennes miniatures multicapteurs utilisant la diversité en vue d'augmenter les performances radio d'un terminal mobile 4G	2010
28	Pierre Henri THEVENON	Sécurisation de la couche physique des communications sans contact de type RFID et NFC	2011
29	Hamza CHAABANE	Contribution à la recherche de topologies d'antennes pour des applications RFID	2012
30	Arnaud VENA	Contribution au développement de la technologie RFID sans puce à haute capacité de codage	2012
31	Melle Raji Sasidharan NAIR	Contribution au développement de tags chipless et des capteurs à codage dans le domaine temporel	2013
32	Dat Son NGUYEN	Développement des capteurs sans fil basés sur les tags RFID UHF passifs pour la détection de la qualité des aliments	2013
33	GianFranco ANDIA VERA	Communication non linéaires en RFID	2014
34	Mossaab DAIKI	Miniaturisation des antennes RFID	2014
35	Tsitoha Andriamiharivolamena	Antenne Intégrable au vêtement	2014
36	Divya UNNIKRISSHANNAN	Conception de Circuit RF en technologie MID	2014
37	David HOTTE	Communication passive à 60 GHz.	2015

Awarded thesis

N°	Nom	Titre de la thèse	Distinction
1	Anh HO QUOC	Étude et réalisation de dispositifs tout-optiques pour le traitement de signaux rapides	Prix de thèse INPG 1997
2	Giovanni CERVELLI	Analyse, caractérisation et optimisation d'une liaison optique analogique pour l'extraction des données d'un détecteur de particules	Label Européen 1999
3	Delphine BECHEVET	Contribution au développement de tag RFID, UHF et microondes, sur matériaux plastiques	Région Rhône-Alpes Grant 2005
4	Sébastien MONTUSCLAT	Etude d'antennes intégrées silicium dans la bande 40-80 Ghz, simulation, développement et caractérisation hyperfréquence	Prix de thèse INPG 2006
5	Arnaud VENA	Contribution au développement de la technologie RFID sans puce à haute capacité de codage	Prix de thèse Univ Grenoble 2013