Bekkay HAJJI

Curriculum Vitae

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Education

2008 **HDR**, *Faculty of Sciences of Oujda*, Mohammed 1st University.

1996 – 1999 **Ph.D., degree**, *"Conception of Microelectronic and Micro-systemes"*, PhD Thesis prepared at LAAS-CNRS, Université de Paul Sabatier, Toulouse, France.

1994 – 1995 **DEA degree in Microelectronics**, *Conception of Microelectronic and Micro-systemes*, INSA,Toulouse, France.

1994 **Licence EEA**, *Faculty of Sciences of Oujda*, Mohammed 1st University.

Experience & Position held

2015-Now **Professor**, *National School of Applied Sciences - Oujda*.
Mohammed 1st University

2016-Now **Head**, *of "Renewable Energy, Embedded Systems and Information Processing" Laboratory, National School of Applied Sciences - Oujda*.
Mohammed 1st University

2016-Now **Head**, *of "Energy and Embedded Systems" Research Team, National School of Applied Sciences - Oujda*.
Mohammed 1st University

2010 – 2016 **Head**, *of "Micro and Nano Systems and Devices" Research Team, National School of Applied Sciences - Oujda*.
Mohammed 1st University

2010 – 2014 **Head**, *of "Electrical Engineering Departement", National School of Applied Sciences - Oujda*.
Mohammed 1st University

1999 – 2002 **Engineer at ST-Microelectronics**, *Casablanca-Morocco*, "Responsible of Assembly Enginnering Area", Production line : DPAK & TO220.

1996 – 1999 **3 years experiences in Cleanroom Manufacturing** , *at LAAS-CNRS, Toulouse, France*.

International scientific committee of conferences

May 2022 **General Chair**, *of "The 3rd International Conference on Electronic Engineering and Renewable Energy Systems (ICEERE'22)"*.
20-22 May 2022, Saidia, Morocoo

April 2020 **General Chair**, *of "The 2nd International Conference on Electronic Engineering and Renewable Energy Systems (ICEERE'20)"*.
13-15 Avril 2020, Saidia, Morocoo

April 2019 **General Chair**, *of "The First International on Electric Engineering and Renewable Energy (ICEERE'18)"*.
15-17 April 2018, Saidia, Morocco

April 2019 **Co-Chair**, *of "The 5th IEEE International Conference on Wireless Technologies, Embedded and Intelligent Systems (WITS'19) "*.
3-4 April 2019, Fes, Morocco

November 2018 **Chair**, *of "The International Workshop on Power and Electric System" (IWPES'18) :.* IEEE- International Symposium on Advanced Electrical and Communication Technologies (ISAECT2018), 21-23 November 2018, Rabat, Morocco

2016 - Now **Reviewer**, *for several International conferences : .*
ICMCS'16(Marrakech), ICMCS'17(Tangier),IRSEC'16(Marrakech),IRSEC'17(Marrakech)
,IRSEC'19(Marrakech),WITS'17(Fes), WITS'19(Fes),WITS'20(Fes),ICAT'2017(Safi)
,ICECOCS'18(Kenitra),ICECOCS'20(Kenitra),ICSDE'18(Rabat),CETSIS'18(Fes),ISAECT'18(Rabat)
,ISAECT'20(Kenitra),ICOA'19 (Kenitra),ICOA'20(Kenitra),ICDTA'21(Fes),Smartic'19(Saidia)

November **Chair**, *of The International Workshop "Micro-Technology & Embedded Systems" (MT-*
2012 *SE'12).*
25 Mai 2012, ENSA d'Oujda, Morocco

Skills

▷ Solar PV Systems, Photovoltaic Thermal (PV/T) hybrid Systems, Energy Management and Artificial Intelligence
▷ Development of ChemMFETs sensors and Embedded Systems
▷ Conception of Microelectronic and Micro-systemes
  ○ Proficiency in HDL (VHDL, Verilog and System-C) and using VLSI IC Design CAD tools (Synopsys, CADENCE, Mentor, Mathlab, Simulink, Xilinx, Altera)
▷ Design and test of digital ASICs and/or FPGAs

COURSES TAUGHT

▷ Solar Energy and Energy Management
▷ Electronic Circuits and Systems
▷ VHDL, Field Programmable Gate Array (FPGA)& Embedded Systems

PUBLICATIONS

Books and chapter in books

— **Editors** : **B. HAJJI**, A. Mellit, L. Bouselham : "A Practical Guide for Simulation and FPGA Implementation of Digital Design", Computer Architecture and Design Methodologies (CADM), Springer Nature Singapore Pte Ltd. 2022, DOI https ://link.springer.com/book/10.1007/978-981-19-0615-2.

— **Editors** : **B. HAJJI**, A. Mellit, A. Gagliano, A. Rabhi, Mohammed Amine Koulali : "Proceedings of the 3rd International Conference on Electronic Engineering and Renewable Energy Systems", Lecture Notes in Electrical Engineering book series (LNEE, volume 954), Springer Nature Singapore Pte Ltd. 2023, DOI https ://link.springer.com/book/10.1007/978-981-19-6223-3.

— **Editors** : **B. HAJJI**, A. Mellit, M. Tina, A. Rabhi, J. Launay and S.E. Naimi : "Proceedings of the 2nd International Conference on Electronic Engineering and Renewable Energy Systems", Lecture Notes in Electrical Engineering book series (LNEE, volume 681), Springer Nature Singapore Pte Ltd. 2021, DOI https ://doi.org/10.1007/978-981-15-62587.

— **Editors** : **B. HAJJI**, M. Tina. K. Ghoumid, H. Rabhi and A. Mellit : "Proceeding of the first International on Electric Engineering and Renewable Energy" , Lecture Notes in Electrical Engineering book series (LNEE, volume 519), Springer Nature Singapore Pte Ltd. 2019, DOI https ://doi.org/10.1007/978-981-13-1405-6.

— L. Bouselham, A. Rabhi,**B. HAJJI** : "New Reconfiguration Method Based on Logic Gates for Small Dynamic Photovoltaic Array", A Practical Guide for Advanced Methods in Solar Photovoltaic Systems, Advanced Structured Materials book series-Springer, 2020, DOI https ://doi.org/10.1007/978-3-030-43473-1.

Publications in international journals and conference proceedings

1. Benzaouia, M., **B. HAJJI**, Rabhi, A., Benzaouia, S., Mellit, A. : "Real-time Super Twisting Algorithm based fuzzy logic dynamic power management strategy for Hybrid Power Generation System", Journal of Energy Storage, 2023, 65, 107316.

2. Jalti, F., **B. HAJJI**, Acri, A., Calì, M. : "An Advanced Rider-Cornering-Assistance System for PTW Vehicles Developed Using ML KNN Method", Sensors, 2023, 23(3), 1540.

3. Safae Margoum,Chaimae El Fouas, **B. HAJJI**, Stefano Aneli,Marco Giuseppe Tina and Antonio Gagliano :"Modelling and performances assessment of a nanofluids-based PV/T hybrid collector", Energy Sources, Part A : Recovery, Utilization, and Environmental Effects Volume 45, 2023.

4. Michele Calì, **B. HAJJI**, Gioele Nitto and Alberto Acri : "The Design Value for Recycling End-of-Life

Photovoltaic Panels", Appl. Sci. 2022, 12, 9092.

5. Zineb Aqachmar, Mustapha Raoufi, Abdelali El Gourari, Tarik Bouhal, Mariame Jenhi, **B. HAJJI**, Abdelfettah Barhdadi : "Modelization and Simulation of a Low Cost Concentrated Photovoltaic Solar Cell : Parametric and Sensitivity Study under MATLAB", Instrumentation Mesure Métrologie, Vol. 21, No. 1, February, 2022, pp. 1-6.

6. Chaimae El Fouas , Nelu Cristian Chereches , Sebastian Valeriu Hudișteanu, **B. HAJJI**, Emilian Florin Țurcanu, and Monica Lilioara Chereches : "Numerical and Parametric Analysis for Enhancing Performances of Water Photovoltaic/Thermal System", Appl. Sci. 2022, 12(2), 646.

7. Loubna Bouselham , Abdelhamid Rabhi, **B. HAJJI**, Adel Melli : "Photovoltaic array reconfiguration method based on fuzzy logic and recursive least squares : An experimental validation", Energy, Volume 232, 1 October 2021, 121107.

8. Oussama El Manssouri, **B. HAJJI**, Giuseppe Marco Tina, Antonio Gagliano and Stefano Aneli : "Electrical and Thermal Performances of Bi-Fluid PV/Thermal Collectors", Energies 2021, 14(6), 1633.

9. C. El Fouas, **B. HAJJI**, A. Gagliano, G.M. Tina and S. Aneli : "Numerical model and experimental validation of the electrical and thermal performances of photovoltaic/thermal plant", Energy Conversion and Management,2020.

10. Benslimane, A., Bouchnaif, J., Essoufi, M., **B. HAJJI** and el Idrissi, L : "Comparative study of semiconductor power losses between CSI-based STATCOM and VSI-based STATCOM, both used for unbalance compensation", Protection and Control of Modern Power Systems, Springer 2020.

11. K. GHOUMID, E.-M. AR REYOUCHI, A. GHADBANE, **B. HAJJI**, R. YAHIAOUI and T.GHARBI : " Signal breathing losses in filters based on optical channel with high index modulation'", International Journal of Electronics and Communications (AEU) Vol. 73 (2017), pp 9–15.

12. E.-M. AR REYOUCHI, Y. CHATEI, K. GHOUMID, M. HAMMOUTI and **B. HAJJI** : "Efficient coding techniques algorithm for cluster-heads communication in wireless sensor networks", International Journal of Electronics and Communications (AEU) Vol. 82 (2017), pp 294–304.

13. Safae Margoum, **B. HAJJI** ,Chaimae El Fouas, Oussama El Manssouri, Stefano Aneli, Antonio Gagliano, Giovanni Mannino and Giuseppe Marco Tina : " Prediction of Electrical Power of Ag/Water-Based PVT System Using K-NN Machine Learning Technique", Lecture Notes in Networks and Systems , 2023, 668 LNNS, pp. 125–132.

14. Hanane El Oualy, **B. HAJJI** ,Khadija Mokhtari, Mouhsine Omari & Hamid Madani : " Evaluation of Machine Learning and Ensemble Methods for Complications Related to Port a Cath", Lecture Notes in Networks and Systems, 2023, 668 LNNS, pp. 133–142.

15. Benzaouia, M., **B. HAJJI**,Rabhi, A. : " Cascaded Control Based on Super Twisting Algorithm for DC-DC Converter", Lecture Notes in Networks and Systems , 2023, 669 LNNS, pp. 561–569.

16. Mellit, A., **B. HAJJI**,Rabhi, A. : " Smart Greenhouse with Plant Diseases Classification Using Transfer Learning and Deep CNNs", Lecture Notes in Electrical Engineering , 2023, 954, pp. 621–629.

17. Margoum, S., El Fouas, C., **B. HAJJI**,Stefano Aneli, Antonio Gagliano, Giovanni Mannino & Giuseppe M. Tina :" Study Effect of Nanofluids on the Performance Enhancement of PV/T Collector", Lecture Notes in Electrical Engineering , 2023, 954, pp. 905–916.

18. Oussama El Manssouri, João Silva, **B. HAJJI**,José Teixeira, Senhorinha Teixeira & Mohamed Hajji :" Simulation Numerical of a Bi-fluid Photovoltaic/Thermal Solar Panel", Lecture Notes in Electrical Engineering , 2023, 954, pp. 971–978.

19. Jalti, F., **B. HAJJI**,Mbarki, A. :" Controlling Powered Two-Wheeled Vehicles in Bends Using Machine Learning", Lecture Notes in Electrical Engineering , 2023, 954, pp. 571–581.

20. Stefano Aneli, Antonio Gagliano, **B. HAJJI**,Giovanni Mannino & Giuseppe M. Tina :" Energy Performances of a Photovoltaic Thermal Plant Using Different Coolant Nanofluid", Lecture Notes in Electrical Engineering , 2023, 954, pp. 733-739.

21. Mohammed Boutaybi, Yamina Khlifi, **B. HAJJI** :" Efficient Fuzzy Logic MPPT Controls for Sudden Change in Load", Lecture Notes in Electrical Engineering , 2023, 954, pp. 461-470.

22. Chaimae El Fouas, Mohamed Hajji, Oussama El Manssouri, **B. HAJJI**, Antonio Gagliano & Giuseppe Marco Tina :" Performances Comparison of PV/T Solar Plants with Roll-Bond and Sheet-and-Tube Absorbers", Lecture Notes in Electrical Engineering , 2023, 954, pp. 707-716.

23. Hanane El Oualy, **B. HAJJI**, Adel Mellit, Mouhsine Omari, Kamal Ahsayan & Hamid Madani :" Prediction of Port A Cath Complications Using Machine Learning Techniques", Lecture Notes in Electrical Engineering , 2023, 954, pp. 317-327.

24. Benzaouia Mohammed, **B. HAJJI**, Mokhtari Hassan & Chaabane Khalid :" Neural Network-Based Precision Irrigation Scheduling and Crop Water Stress Index (CWSI) Assessment", Lecture Notes in Electrical Engineering , 2023, 954, pp. 661-669.

25. Safae Margoum, Chaimae El Fouas, Mohamed Hajji, **B. HAJJI**, & Abdelhamid Rabhi :" Numerical and Parametric Analysis of Nanofluid-Based PV/T System for Hydrogen Production", Lecture Notes in Electrical Engineering , 2023, 954, pp. 979-987.

26. Nabil Ayadi, **B. HAJJI**, Ahmet Lale, Jerome Launay & Pierre Temple-Boyer :" SiNW-ISFET Sensor Modeling Using the k-Nearest Neighbor Machine Learning", Lecture Notes in Electrical Engineering , 2023, 954, pp. 357-365.

27. M. Essoufi, **B. HAJJI**, & Abdelhamid Rabhi :" Modeling and Analysis of a Fuel Cell-Battery Hybrid Electric Vehicle", Lecture Notes in Electrical Engineering , 2023, 954, pp. 583-597.

28. Mohammed Benzaouia, **B. HAJJI**, Abdelhamid Rabhi & Adel Mellit :" Energy Management Strategy Based on Neural Network for Hybrid Renewable System", Lecture Notes in Electrical Engineering , 2023, 954, pp. 388-394.

29. Fakhreddine Jalti, **B. HAJJI** & Abderrahim Mbarki :" New Approach for Controlling PTW Vehicle Dynamics : Characterization of Critical Scenarios", Lecture Notes in Electrical Engineering , 2022, 745, pp. 431-444.

30. Oussama El Manssouri, **B. HAJJI**, Antonio Gagliano & Giuseppe Marco Tina :" Numerical Analysis of Bi-fluid PV/T Hybrid Collector Using the Finite Difference Method", Lecture Notes in Electrical Engineering , 2022, 745, pp. 769-779.

31. Nabil Ayadi, **B. HAJJI**, Abdelghafour Galadi, Ahmet Lale, Jerome Launay & Pierre Temple-Boyer :" Study of Parameters Influencing on the Performance of SiNW ISFET Sensor", Lecture Notes in Electrical Engineering , 2022, 745, pp. 445-455.

32. F. Jalti, **B. HAJJI** & A. Mbarki :" The Potential Outcomes of Artificial Intelligence Applied to the Powered Two-Wheel Vehicle : Analytical Review", Lecture Notes in Networks and Systems, 2021, 211 LNNS, pp. 1595-1605.

33. N. Ayadi, **B. HAJJI**, H. Madani, A. Lale, J. Launay & P. Temple-Boyer :" Simulation and performance study of silicon nanowire (Si-NW) field-effect transistor (FET) pH microsensor", Lecture Notes in Electrical Engineering, 2021, 681, pp. 387-398.

34. Y. Amari, S. Labdai, M. Hasni, A. Rabhi, **B. HAJJI** & A. Mellit :" Behavior study of a new inverter topology for photovoltaic applications", Lecture Notes in Electrical Engineering, 2021, 681, pp. 753-760.

35. Mohammed Benzaouia, **B. HAJJI**, Abdelhamid Rabhi, Adel Mellit, Anas Benslimane & Anne Migan Dubois :" Energy management strategy for an optimum control of a standalone photovoltaic-batteries water pumping system for agriculture applications", Lecture Notes in Electrical Engineering, 2021, 681, pp. 855-868.

36. Stefano Aneli, Antonio Gagliano, Giuseppe M. Tina, **B. HAJJI** :" Analysis of the energy produced and energy quality of nanofluid impact on photovoltaic-thermal systems", Lecture Notes in Electrical Engineering, 2021, 681, pp. 739-745.

37. Mohammed Chaker, Driss Yousfi, **B. HAJJI**, Mustapha Kourchi, Mohamed Ajaamoum, Ahmed Belarabi, Nasrudin Abd Rahim & Jeyrage Selvaraj :" Design and implementation of a photovoltaic emulator using an insulated full bridge converter based switch mode power supply", Lecture Notes in Electrical Engineering, 2021, 681, pp. 531-541.

38. Oussama El Manssouri, Chaimae El Fouas, **B. HAJJI**, Abdelhamid Rabhi, Giuseppe Marco Tina & Antonio Gagliano :" Mass flow rates effect on the performance of PV/T bi-fluid hybrid collector (single and simultaneous modes)", Lecture Notes in Electrical Engineering, 2021, 681, pp. 869-878.

39. C. El Fouas, O. El Manssouri, **B. HAJJI**, G. M. Tina & A. Gagliano :" Study and modeling of energy performance of PV/T solar plant for hydrogen production", Lecture Notes in Electrical Engineering, 2021, 681, pp. 879-891.

40. M. Essoufi, **B. HAJJI** & A. Rabhi :" Energy management strategy based on a combination of frequency separation and fuzzy logic for fuel cell hybrid electric vehicles", Lecture Notes in Electrical Engineering, 2021, 681, pp. 593-606.

41. N. Rouibah, L. Barazane, A. Rabhi, **B. HAJJI**, R. Bouhedir, A. Hamied & A. Mellit :" Experimental assessment of perturb & observe, incremental conductance and hill climbing MPPTs for photovoltaic systems", Lecture Notes in Electrical Engineering, 2021, 681, pp. 461-467.

42. N. Ayadi, **B. HAJJI**, H. Madani, J. Launay and P. Temple-Boyer : "Modelling and performance evaluation of Si-NW ISFET microsensor", IEEE, International Conference on Electrical and Information Technologies, ICEIT 2020.

43. M. Essoufi, **B. HAJJI** and A. Rabhi : "Fuzzy Logic based Energy Management Strategy for Fuel Cell Hybrid Electric Vehicle", IEEE,International Conference on Electrical and Information Technologies, ICEIT 2020.

44. O. El Manssouri, C. El Fouas, **B. HAJJI**, G.M. Tina and A. Gagliano : "Modeling and performances assessments of PV/T bifluid hybrid collector : Three cooling modes operation case",IEEE, International Conference on Electrical and Information Technologies, ICEIT 2020.

45. Oussama El Manssouri, Chaimae El Fouas, **B. HAJJI**, Loubna Bouselham, Abdelhamid Rabhi,Giuseppe Marco Tina and Antonio Gagliano : "Performance Analysis of Bi-fluid Photovoltaic/Thermal (PV/T) Solar Collector",Proceedings of 2019 7th International Renewable and Sustainable Energy Conference, IRSEC 2019.

46. Loubna Bouselham, Abdelhamid Rabhi, **B. HAJJI**, Adel Mellit and Chaimae El Fouas : "An Intelligent Irradiance Equalization Approach based on Fuzzy Logic for Small Reconfigurable PV Architecture",Proceedings of 2019 7th International Renewable and Sustainable Energy Conference, IRSEC 2019.

47. Mohammed Benzaouia, Loubna Bouselham, **B. HAJJI**,Anne Migan Dubois, Anas Benslimane and Mostafa El Ouariachi : "Design and Performance Analysis of a Photovoltaic Water Pumping System based on DC-DC Boost Converter and BLDC Motor",Proceedings of 2019 7th International Renewable and Sustainable Energy Conference, IRSEC 2019.

48. Chaimae El Fouas, Oussama El Manssouri, **B. HAJJI**,Loubna Bouselham, Giuseppe Marco Tina and Antonio Gagliano : "Modeling of Dust Deposition Impact on PV/T Hybrid Collector Performances",Proceedings of 2019 7th International Renewable and Sustainable Energy Conference, IRSEC 2019.

49. N. Rouibah, L. Barazane,A. Mellit, **B. HAJJI** and A. Rabhi : "A low-cost monitoring system for maximum power point of a photovoltaic system **using IoT technique**",IEEE, International Conference on Wireless Technologies, Embedded and Intelligent Systems, WITS 2019.

50. H. Sellamna, A. Mellit,A. Rabhi and **B. HAJJI** : "Micro-grid reactive power sharing using an adaptive virtual impedance technique",IEEE, International Conference on Wireless Technologies, Embedded and Intelligent Systems, WITS 2019.

51. L. Bouselham, **B. HAJJI**, A. Mellit, A. Rabhi and K. Kassmi : "Hardware implementation of new irradiance equalization algorithm for reconfigurable PV architecture on a FPGA platform", IEEE, International Conference on Wireless Technologies, Embedded and Intelligent Systems, WITS 2019.

52. Y. Khlifi, **B. HAJJI**, and A. Messaoudi : " A New Maximum Power Point Tracking PV Control for Rapid Changes in Irradiation Level ", Lecture Note in Electrical Engineering, Springer (2019), pp 384–391.

53. L. Bouselham, **B. HAJJI**, A. Mellit, A. Rabhi, and A. Mazari : "A Reconfigurable PV Architecture Based on New Irradiance Equalization Algorithm ", Lecture Note in Electrical Engineering, Springer (2019), pp 470–477.

54. D. Yousfi, **B. HAJJI** , M. El Hafyani, M. Kourchi, H. Mohssine, N. Abd Rahim, and J. Selvaraj : " Design, Simulation and Implementation of an Isolated Switched-Mode Power Supply ", Lecture Note in Electrical Engineering, Springer (2019), pp 350–358.

55. C. El Fouas, M. Hajji, H. Bouali, **B. HAJJI**, G. M. Tina and Y. Khlifi :" Absorber Designs Effect on the Performance of PV/T Water Hybrid Collector", Lecture Note in Electrical Engineering, Springer (2019), pp 679–689.

56. H. Sellamna, N. Rouibah, A. Mellit, G. M. Tina and **B. HAJJI** : "Power Flow Control in Autonomous Micro-grid Operation Using Ants Colony Optimization Under Variable Load Conditions", Lecture Note in Electrical Engineering, Springer (2019), pp 392–398.

57. L. Bousalham, M. Hajji, **B. HAJJI**, H. BOUALI : "A New MPPT-based ANN for Photovoltaic System under Partial Shading Conditions", Energy Procedia, Vo 111 (2017), pp 924-933.

58. C. El Fouas, M. Hajji, L. Bouselham, **B. HAJJI**, A.El Mehdi, H. Bouali : "Analysis and design of an energy system based on PVT water collector for building application", IEEE, Renewable and Sustainable Energy Conference (IRSEC), 2017.

59. L. Bouselham ; M. Hajji ; **B. Hajji** ; H. Bouali : "A MPPT-based ANN controller applied to PV pumping system", IEEE, Renewable and Sustainable Energy Conference (IRSEC), 2016.

60. L. Bousalham, M. Hajji, **B. HAJJI**, A. El Mehdi, H. Hajji : "Hardware implementation of Fuzzy logic MPPT controller on a FPGA Platform", IEEE, Renewable and Sustainable Energy Conference (IRSEC), 2015.

61. M. Hajji, S. Naimi, **B.HAJJI**, A. El Mehdi, M. El Hafyani : "Performance analysis of hybrid photovoltaicthermal (PVT) collector",IEEE, Renewable and Sustainable Energy Conference (IRSEC), 2015.

62. L. Bouselham, ,**B. Hajji**, H. Hajji : "Comparative study of different MPPT methods for photovoltaic system", Renewable and Sustainable Energy Conference (IRSEC), 2015.

63. S.E. Naimi, **B. Hajji**, I. Humenyuk , J. Launay, P. Temple-Boyer : "Temperature influence on pH-ISFET sensor operating in weak and moderate inversion regime : Model and circuitry", Sensors and Actuators B 202 (2014), pp 1019–1027.

64. M. Hajji, S.E. Naimi, **B. Hajji**, M.L. El Hafyani : "A comparative study between two structures of hybrid photovoltaic/thermal (PV/T) collectors for water pumping systems",IEEE, Renewable and Sustainable Energy Conference (IRSEC), 2014 International.

65. M. Hajji, S.E. Naimi, **B. Hajji**, M.L. El Hafyani : : A numerical modeling of hybrid photovoltaic/thermal(PV/T) collector", ICM 2014 26th IEEE International Conference on.

66. S. E. Naimi, **B. Hajji**, Y. Habbani, I. Humenyuk, J. Launay, P. Temple-Boyer : "Modeling of the pH-ChemFET response and using Genetic Algorithm as extraction parameters method",IEEE 2011 Faible Tension Faible Consommation (FTFC), pp 103-106.

67. S. E. Naimi, **B. Hajji**, Y. Habbani, I. Humenyuk, J. Launay, P. Temple-Boyer :"Modeling of The pH-ISFET Thermal Drift",IEEE 2009 International Conference on Microelectronics, pp 288-291.

68. **B. Hajji**, S. E. Naimi I. Humenyuk, J. Launay, P. Temple-Boyer : "Behavioral Modeling of The pH-ISFET Temperature Influence", IEEE 2007 International Conference on Electronics, Circuits and Systems, pp 419-422.

69. **B. Hajji**, P. Temple-Boyer, J. Launay, A. Martinez : "pH, pK and pNa detection properties of SiO2/Si3N4 ISFET chemical sensors", Microelectronics Reliability 40(4)(2000), pp 783-786.

70. Temple-Boyer, J. Launay, **B. Hajji**, G. Sarrabayrouse, A. Martinez : "Study of capacitive structures for amplifying the sensitivity of FET basedchemicalsensors", Sensors and Actuators B78 (2001), pp 285-290.