


PERSONAL INFORMATION

Augustin MPANDA

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POSITION

▪ Professor, Head of Research at Graduate School of Electronic and Electrical Engineering in Amiens, France.

WORK EXPERIENCE

From 2007 to present	Professor and Head of research at the Graduate School of Electronic and Electrical Engineering, ESIEE-Amiens, Amiens, France.
2006 to present	Professor in Electrical Engineering, FSATI/Tshwane University of Technology, Pretoria, South Africa
2004 to 2012	Professor and Head of Electrical Engineering Department at the Graduate School of Electronic and Electrical Engineering, ESIEE-Amiens, Amiens, France.
1995 - 2004	Lecturer and senior research engineer with the Department of Electrical Engineering of the Graduate School of Electronic and Electrical Engineering, ESIEE-Amiens, Amiens, France.
1990 - 1993	Postdoctoral research at Polytechnic Faculty of Mons, Mons, Belgium.
1983 - 1990	Lecturer at Polytechnic Faculty of Engineering of the University of Lubumbashi (DRC) and researcher at Polytechnic Faculty of Mons, Mons, Belgium.
From 1979 to 1982	Electrical Lecturer at Polytechnic Faculty of Engineering of the University of Lubumbashi (DRC).

EDUCATION AND TRAINING

February 1990	PhD in Applied Science, Electrical Engineering Mons Polytechnic Faculty, Mons, Belgium
October 1989	Master of Science in Economics University Of Mons, Mons, Belgium
January 1985	Master of Science in Electrical Engineering Mons Polytechnic Faculty, Mons, Belgium
October 1979	Bachelor of Science in Mining Engineering University of Lubumbashi, Katanga, DRC

Language SKILLS

French and English proficient in understanding, speaking and writing.

Publications
Conferences
2013-2017

1. Design of an Electrical Distribution Test Rig for Validation of Equipment for More Electrical Aircraft J. E. Bester , A. Mpanda, N. Polfliet, J. Van den Keybus, G. Martial Power Electronics and Applications (EPE), 2013 15th European Conference on 2-6 Sept. 2013, Lille, France – IEEE
2. Small power tapping limit on dc-link of VSC HVDC transmission system, Agha F. Nnachi; Josiah L Munda; Dan V Nicolae; Augustin Mpanda Mabwe, IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society.
3. Electric circuit parameters identification and control strategy of dual-rotor Permanent Magnet Induction Machine, Ana Maria Gazdac; Lino Di Leonardo; Augustin Mpanda Mabwe; Franck Betin; Marco Villani, 2013 International Electric Machines & Drives Conference, Year: 2013, Pages: 1102 – 1107.
4. Design of an electrical distribution test rig for validation of equipment for more electrical aircraft, Bester, A. Mpanda, N. Polfliet, J. van den Keybus, and G. Martial, "," in Power Electronics and Applications (EPE), 2013 15th European Conference on, Sept 2013, pp. 1-10.
5. VSC HVDC transmission corridor: an option for PV power injection and AC network stability support., Nnachi AF, Munda JL, Nicolae DV, Mpanda Mabwe A., IEEE 2013 International Conference on Industrial Technology; -27 February 2013; Cape Town, South Africa. New York, NY, USA: IEEE. pp. 503–508.
6. "Modelling of lithium-ion battery and soc estimation using simple and extended discrete kalman filters for aircraft energy management," J. Bester, A. El Hajjaji, and A. Mpanda Mabwe, in Industrial Electronics Society, IECON 2015 - 41st Annual Conference of the IEEE, Nov 2015, pp. 2433-2438.
7. "A virtual electrical test bench for more electrical aircraft architecture verification and energy management development," J. Bester, A. Mpanda Mabwe, and A. El Hajjaji, in Power Electronics and Applications (EPE), 2015 17th European Conference on, Sept 2015, pp. 1-10.
8. "Smart electrical power distribution centre: Enhancing electrical test bench evaluation of more electrical aircraft technologies," J. Bester, A. El Hajjaji, and A. Mpanda Mabwe, in Aerodays, 2015 7th European Aeronautics Days, Oct 2015.
9. Enhancing Electrical Test Bench Evaluation of More Electrical Aircraft Technologies, A.Mpanda, J.Bester – Aerodays , 7th European aeronautics day – London 2015.
10. Coordination of multiple-power tapping from existing HVDC link , Nnachi, A.F. ; Dept. of Electr. Eng., Tshwane Univ. of Technol., Tshwane, South Africa ; Munda, J. ; Nicolae, D.V. ; Mabwe, A.M., Environment and Electrical Engineering (EEEIC), 2015 IEEE 15th International Conference on, Year: 2015, Pages: 576 – 580.
11. State of charge estimation based on extended Kalman filter algorithm for Lithium-Ion battery, Kamal, E.; El Hajjaji, A.; Mabwe, A.M. Control and Automation (MED), 2015 23th Mediterranean Conference on, Year: 2015, Pages: 734 – 739
12. Residential lighting load profile modelling, O. Popoolaa, , , J. Mundaa, A. Mpanda, Energy and Buildings, EDITION ELSEVIER, Volume 90, 1 March 2015, Pages 29–40.
13. Comparative analysis and assessment of ANFIS-based domestic lighting profile modelling, O. Popoola, , J. Munda, A. Mpanda, A.P.I. Popoola, Energy and Buildings -EDITION ELSEVIER, Volume 107, 15 November 2015, Pages 294–306.
14. Transient stability analysis of VSC HVDC transmission with power injection on the DC-link, Agha Francis NNACHI, Josiah MUNDA, Dan Valentine NICOLAE, Augustin MPANDA Mabwe Turk J Elec Eng & Comp Sci, (2015) 23: 1834 { 1852, doi:10.3906/elk-1404-214, Turkish Journal of Electrical Engineering & Computer Sciences.
15. Control of a bidirectional dual active bridge converter for charge and discharge of a Li-Ion Battery, Said Talbi; Augustin Mpanda Mabwe ; Ahmed El Hajjaji, Industrial Electronics Society, IECON 2015 - 41st Annual Conference of the IEEE, Conference:9-12 Nov. 2015.

16. Modelling of Lithium-ion battery and SOC estimation using simple and extended discrete Kalman Filters for Aircraft energy management, Jean Ernst Bester ; Ahmed El Hajjaji; Augustin Mpanda Mabwe, Published in:Industrial Electronics Society, IECON 2015 - 41st Annual Conference of the IEEE, 9-12 Nov. 2015.
17. "Control of a bidirectional dual active bridge converter for charge and discharge of a Li-Ion Battery, " Said Talbi; Augustin Mpanda Mabwe; Ahmed El Hajjaji, IECON 2015 - 41st Annual Conference of the IEEE Industrial Electronics Society, Year: 2015, Pages: 849 – 856.
18. Fuel cell and lithium-ion battery based auxiliary power unit for aeronautical use implementing sliding mode control and fuzzy logic, J. Bester, A. El Hajjaji, and A. Mpanda Mabwe, in 2016 2nd Greener Aviation conference: Achievements and perspectives, Oct 2016, pp. 1-12.
19. Fuel cell and Lithium-ion battery based auxiliary power unit for aeronautical use implementing sliding mode converter control and fuzzy logic energy management, J. BESTER, Greener Aviation Conference, 11-13 octobre 2016, Bruxelles (Belgique).
20. Multiple Device Open Circuit Fault Diagnosis for Neutral-Point-Clamped Inverters, Marina Sital-Dahone, Aparna Saha, Yilmaz Sozer et Augustin Mpanda , Applied Power Electronics (APEC 2017), 26-30 mars 2017, Tampa (USA).
21. PI-fuzzy Control of a Bidirectional Dual Active Bridge Converter, Said Talbi, Augustin Mpanda et Ahmed El Hajjaji, American Control Conference (ACC 2017), 24-26 mai 2017, Seattle (USA).
22. High Performance SiC MOSFETs for Fault Tolerant Applications, C. Onambebe, A. Mpanda, F. Giacchetti et M. Elsied, International Conférence On Renewable Energy and Power Quality (ICREPQ'17), 4-6 avril 2017, Malaga, (Espagne).
23. Highly Efficient Drive System based on SiC MOSFETs for High Power Electric Transportation', C. Onambebe, A. Mpanda, M. Elsied et F. Giacchetti, International Conference on Compatibility, Power Electronics and Power Engineering (IEEE CPE-POWERENG), 4-6 avril 2017, Cadiz, (Espagne).
24. Co-simulation Modeling of High Performance Motor-Drive Systems for Aerospace applications", C. Onambebe, A. Mpanda, M. Elsied et F. Giacchetti, Electric Machines and Drives Conference (IEEE IEMDC), 21-24 mai 2017, Miami, (USA).
25. Grid Interconnection of Renewable Energy Sources Based on Advanced Multi-Level Inverter', M. Beye, M. Elsied, A. Mpanda, C. Onambebe, Environment and Electrical Engineering International Conference and Industrial and Commercial Power Systems Europe (IEEE I&CPSEurope 2017) (IEEE EEEIC 2017), 6-9 juin 2017, Milan (Italie).
26. Sharing Information for "Residential lighting load profile modelling: ANFIS approach using weighted and non-weighted data," Olawale M. Popoola, Josiah Munda, Augustin Mpanda Springer Science, August 2017.

Projects Relevant project participations include:

- **EU Clean Sky FP7 SEPDC** "Smart Electrical Power Distribution Centre" (2011-2013) ESIEE Amiens (FR)(Leader), Hazemeyer (FR), Triphase (BE). Finance: 0.7M€
- **Regional CADEMCE Project** "Dynamic and Environmental Characterization of Power Transmission for Railways" (2012-2016) ASLTOM, SNCF, MERSEN, ESIEE-Amiens (Leader), ESI Group. Finance: 5.3M€
- **Regional PILSTR Project** "Pantograph in-the-Loop Real Time System" (2015 till present), Consortium of Railway Companies, ESIEE Amiens (FR), Leader.
- **Regional DIAGFER Project** "Diagnostic for Railways Systems" (2007-2009) ESIEE Amiens (FR), UPJV (FR)(Leader)
- **EU INTERREG IV project PACIFC** ((Pantograph Catenary Interaction Framework Program for Intelligent Control, 2009-20011), ESIEE Amiens (FR), UPJV (FR), University of Brighton (UK).
- Picardie Regional Council Project « **GEOMED** » Génératrices EOliennes Multiphasées à Entraînement Direct, (2013-2016), 1.2M€
- European H2020 Cleansky Project « **HyperMAC** » (Hyper Performance Motor Air Cooled) (2014-2016), 1.5M€
- **SAVER** (Smart Battery with Active Power Conversion), H2020, 2013 – 2015, 600k€

Honours and Awards	1994	PRIZE Robert SINAVE for industrial applications, Royal Belgian Institute of Electricians (SRBE-KVBE), Brussels, BE.
	1998	PRIZE PAPER of The Institute of Electrical and Electronic Engineers (IEEE), Power Engineering Society (PES) , San Diego / USA, Summer Meeting 1998.
	2012	Best Paper OPTIM
	2013	IEEE Communication Awards

Memberships IEEE Senior Member, SEE (Electrical and Electronic Engineers Society, France) Member, SRBE (Royal Electrical and Electronic Engineers Society, Belgium) Member
Reviewer for international journal and conferences

- Courses
- Power system analysis (master, ESIEE)
 - Energy and conversion systems (master, TUT, South Africa)
 - Power quality (master, ESIEE)
 - Electrical system dynamics (master, ESIEE)
 - Renewable energies (master, ESIEE)

