

CURRICULUM VITAE

Ana V. Stankovic

EDUCATION:

- 1982 **BS Electrical Engineering** – University of Belgrade – Serbia
1989 **MS Electrical Engineering** - University of Belgrade – Serbia
1998 **Ph.D. Electrical Engineering** - University of Wisconsin-Madison

INDUSTRIAL EXPERIENCE

Jan.1983 - Oct 1990 **Design Engineer** Nikola Tesla Research Institute, Belgrade, Serbia

ACADEMIC EXPERIENCE

- Oct. 1990- Feb.1991 **Visiting Scholar**
University of Wisconsin-Madison
- Feb. 1991 - 1992 **Research Intern / Lecturer**
Department of Electrical & Computer Engineering
University of Wisconsin-Madison
- Jan. 1993 - Dec. 1997 **Lecturer / Teaching Assistant / Research Assistant
(Ph.D. student)**
Department of Electrical & Computer Engineering
University of Wisconsin-Madison
- Jan. 1998 - June 1998 **Associate Lecturer / Research Associate**
Department of Electrical & Computer Engineering
University of Wisconsin-Madison
- June 1998 - June 1999 on maternity leave
- August 1999 – 2005 **Assistant Professor**
Electrical and Computer Engineering Department
Cleveland State University
- August 2005 – 2012 **Associate Professor**
Electrical and Computer Engineering Department
Cleveland State University
- August 2012 – present **Professor**
Electrical and Computer Engineering Department
Cleveland State University

RESEARCH INTERESTS / EXPERIENCES

**Power Electronics, Power Quality, Renewable Energy,
Smart Power Grids**

FEDERAL GRANTS: **National Science Foundation (NSF) –CCLI**

**Course, Curriculum and Laboratory Improvement
(CCLI) - \$34,765
CSU committed \$34,765
NASA committed \$20,000
Total - \$ 89,530**

**DOE - Recovery Act: supported under DOE Funding
Opportunity Announcement DE-0000152.
DOE - \$ 25,000.00
CSU cost –share -\$12,500
Total: \$37,500**

IEEE PES - \$4,000.00

RESEARCH GRANTS:

**General Electric – Lighting - open-ended
cooperation \$262,970.00**

DONATIONS:

**AVANTI CORPORATION: In –kind gift -SABER
– \$ 86,000.00,
SYNOPSIS - \$405,000.00
SYNOPSIS - \$654,150.00**

POWER PROGRAM

**Developed the power program at CSU
(1999-present)**

RESEARCH LABORATORY:

**Developed State of the Art Power Electronics and
Electric Machines research infrastructure with THREE
Lab-Volt, FOUR DSPACE and ONE Wind/Solar Test
Bench (2004-present)**

**Book Chapters
(Peer-reviewed research
monographs)**

Ana Stankovic, “Three–Phase Pulse-Width-Modulated Boost-Type Rectifiers”, **THE POWER ELECTRONICS HANDBOOK** (Edited by Tim Skvarenina), CRC Press, Chapter 4.3, pp. 4.33 - 4.41. 2001

A.V. Stankovic, “Unbalanced Operation of Three-Phase Boost Type Rectifiers”, **HANDBOOK OF AUTOMOTIVE POWER ELECTRONICS MOTOR DRIVES** (Edited by Ali Emadi), Taylor and Francis Group, LLC. Chapter 13.2005

Ana Vladan Stankovic and Dejan Schreiber “Line side Converters in Wind Power Applications, **HANDBOOK ON RENEWABLE ENERGY TECHNOLOGY** (Edited by Ahmed Zobaa and Ramesh Bansal), Chapter 6, pp 119-146, World Scientific Publishing Company PTE LTD, 2011.

Ana Vladan Stankovic, Dejan Schreiber and Shuang Wu, “Control Methods for Grid Side Converters under Unbalanced Operating Conditions in Wind Power Applications”, **MODELING AND CONTROL OF POWER SYSTEMS: TOWARDS SMARTER AND GREENER ELECTRIC GRIDS** (Edited by Lingfeng Wang), Springer pp.127-153,2012

Ana Vladan Stankovic, Dejan Schreiber and Xiangpeng Zheng,” Grid-Fault-Ride Through Control Method for a Wind Turbine Inverter”, Chapter 17 in **SMART POWER GRIDS** (Edited by Ali Keyhani and **Muhammad** Marwali), Springer, 2012.

Peer-reviewed Journal Publications

Bogdan M. Brkovic, Lepsava B. Ristic, Mladen V. Terzic, Ana V. Stankovic, Zoran M. Lazarevic, "Magnetizing Inductance Determination in a Six-phase Induction Machine, ", *IEEE Transactions on Energy Conversion*, Volume 34, Issue: 2, June 2019.

W. Xiong, A.V. Stankovic and L. Nerone, " Modeling and Design of L-Complementary Self-Oscillating Class D Inverter with Output Voltage Clamping", *IEEE Transactions on Industry Applications*, Vol.49, Issue.2, pp. 731-738, Marc/April 2013.

A.V. Stankovic, L. Nerone and P. Kulkarni, “Modified Synchronous Buck Converter for Dimmable HID Electronic Ballast”, *IEEE Transactions on Industrial Electronics*, Vol.59, No.4, April 2012.

N. Scheidegger, A.V. Stankovic, “DC/DC Converter for Commercial Refrigeration LED Lighting, *LEUKOS (Journal of the Illuminating Engineering Society of North America)*, Vol.7, No 2, October 2010.

A.V. Stankovic, L. Nerone and S. Vernyuk, “A new High Efficiency HID Electronic Ballast”, *LEUKOS*, Vol.6, No.4, pp.311-328, April 2010.

Ana Vladan Stankovic and Ke, Chen, "A New Control Method for Input-Output Harmonic Elimination of the PWM Boost Type Rectifier under Extreme Unbalanced Operating Conditions", *IEEE Transactions on Industrial Electronics*, Vol.56, No.7, July 2009.

M. G. Marita, A. V. Stankovic and L. Nerone, "An application of a Ripple Current Cancellation Technique to a Boost Power Factor Correction Circuit for Electronic Ballasts", *LEUKOS*, Vo.5, No.3, pp. 237-259 January 2009.

H. Y. Wang, A.V. Stankovic, D. Kachmarik and L. Nerone, "A Novel Discrete Dimming Ballast for Linear Fluorescent Lamps", *IEEE Transactions on Power Electronics*, Vol. 24, No. 6, June 2009.

N. Sayed, A. V. Stankovic, L. Nerone, "A New Mathematical Tool to Meet IEC 61000-3-2", *Journal of the Illuminating Engineering Society*, vol. 33, No.1, Winter 2004.pp. 67-74.

A.V. Stankovic, E. Benedict, V. John and T. A. Lipo, "A Novel Method for Measuring Induction Machine Magnetizing Inductance", *IEEE Transactions on Industry Applications*, vol. 39. No.5, Sep/Oct 2003.pp. 1257-1263.

A. V. Stankovic, D. Uppala, D. Kachmarik, M.C Cosby Jr. and L. Nerone, "Design, Analysis and Optimization of a Universal Power Factor Correction Circuit for Linear Fluorescent Lamps", *Journal of the Illuminating Engineering Society*, vol. 33, No.1, Winter 2004. pp.43-54.

N. Sayeed, A. V. Stankovic and L. Nerone, "A Low-Cost High-Power Factor Electrolytic-less Ballast for Fluorescent lamps", *Journal of the Illuminating Engineering Society*, vol.32. No.1.Winter 2003.pp. 41-51.

A.V. Stankovic and T. A. Lipo, "A Novel Control Method for Input Output Harmonic Elimination of the PWM Boost Type Rectifiers Under Unbalanced Operating Conditions", *IEEE Transactions on Power Electronics*, vol.16, no.5. pp. 603-611, Sep. 2001

M. R. Stojic and A. V. Stankovic, "Setting of controller parameters in microprocessor-based speed control system with DC motor, "Publications of the Faculty of Electrical Engineering, Automatic Control Series.No.1. 1991. pp. 29-43.

Peer-reviewed Conference Proceedings

W. Xiong, A.V. Stankovic, "A Novel Accurate Indirect Current Controller for Critical Mode Buck Boost Type Converter Constant Current LED Driver", IEEE IAS Annual Meeting, Phoenix Arizona, 2024.

W. Xiong, A.V. Stankovic, "A Super Compact Isolated Self-Clamped Half-Bridge LC Resonant Converter with Wide Output Range and Soft-Switching Behavior", 2023 IEEE IAS Annual Meeting, Nashville, Tennessee.

M. Majstorovic, B. Brkovic, N. Vojvodic, L. Ristic and A.V. Stankovic, "Three-Phase Boost Rectifier Control Implemented Using Hardware-in-the-Loop", IEEE Power Tech 2023, Belgrade, Serbia.

B. Brkovic, L. Ristic, A.V. Stankovic, "Current Control of a Three Phase PWM Boost Rectifier under Unbalanced Conditions Using Space Vector Modulation", 2016 4th International Symposium on Environmental Friendly Energies and Applications (EFEA)

B. Brkovic, L. Ristic, A.V. Stankovic, "Model Predictive Current Control of a Three Phase PWM Boost Rectifier under Unbalanced Conditions", 2016 4th International Symposium on Environmental Friendly Energies and Applications (EFEA).

W. Xiong, A.V. Stankovic, "Program Start Fluorescent Ballast with Clamped-Q Resonant Filament Heating Circuit", proceedings of 2014 IEEE IAS Annual Meeting in Vancouver, Canada, pp1-8.

W. Witt, A.V. Stankovic, "Forecasting Electrical Parameters of Mass-Produced LED Luminaire using the Monte Carlo Method", proceedings of 2014 IEEE IAS Annual Meeting in Vancouver, Canada, pp1-8.

W. Xiong, A.V. Stankovic, "A True Parallel Lamp Operation Universal Program Start Dimming Ballast Platform Based on Decoupled Half-bridge Inverter", proceedings of 2014 IEEE IAS Annual Meeting in Vancouver, Canada, pp1-8.

A.V. Stankovic, Y. Rutkovskiy, "A Novel Control Method for Grid Side Inverters Under Generalized Unbalanced Operating Conditions", Conference Proceedings of IEEE APEC 2013, Long Beach, CA, pp.1-8.

W. Xiong, A.V. Stankovic," A Universal Programmed Start Dimming Ballast", Conference Proceedings of IEEE IAS 2012 Annual Meeting, Las Vegas, Nevada, pp.1-8.

W. Xiong, A.V. Stankovic and L. Nerone, "Modeling and Design of L-Complementary Self-Oscillating Class D Inverter with Output Voltage Clamping", Conference Proceedings of IEEE IAS 2011 Annual Meeting, Orlando, Florida, pp. 1-8.

Shuang Wu and Ana Stankovic," A Generalized Method for Wind Inverter Control under Unbalanced Operating Conditions," Conference Proceedings of IEEE ECCE 2011, Phoenix, Arizona, pp.865-870.

Wei Xiong, Ana V. Stankovic and Louis Nerone," Modeling and Design of L-Complementary Self-Oscillating Class D Inverter with Output Voltage Clamping during Starting", Conference Proceedings of IEEE ECCE 2011, Phoenix, Arizona, pp.1132-1136.

Xiangpeng Zheng and A. V. Stankovic, "Ride-Through Fault Generalized Control Method for a Wind Turbine Inverter", Conference Proceedings of IEEE 2011 Energy Tech, Cleveland, Ohio, pp. 1-6.

W. Xiong, A.V. Stankovic and L. Nerone," New Model of L-Complementary Self-Oscillating Class D Inverter with Output Voltage Clamping', Proceedings of IEEE Applied Power Electronics Conference 2011, Fort Worth, Texas, March 6-10, pp. 1852-1857.

A.V. Stankovic, "Trends in developing State of the Art Laboratories for Teaching Power Electronics and Electric drives, Proc of 52nd ETRAN Conference, pp. EE1. 1-1-4. Palic, June 8-12, 2008.

K. Chen, A. V. Stankovic, "Building a Modern Power Electronics and Electric Machines Laboratory", Proceeding of ASEE 2007, Honolulu, Hawaii.

H. Y. Wang, A.V. Stankovic, D. Kachmarik and L. Nerone, "A Novel Discrete Dimming Ballast for Linear Fluorescent Lamps",

Conference Proceedings of 35th IEEE Power Electronics Specialists Conference PESC 2004, Aachen, Germany, June 20 - 25, 2004, pp.815-820.

A.V. Stankovic, A. G. Birchenough, B. Kenny, G. Kimnach, "Modeling of an AC Power System for High Power Spacecraft", Conference Proceedings of Space Technology and Applications International Forum-STAIIF 2004, pp 598- 605.

A. V. Stankovic, D. Uppala, D. Kachmarik, M.C Cosby Jr. and L. Nerone, "Design, Analysis and Optimization of a Universal Power Factor Correction Circuit for Linear Fluorescent Lamps", Conference Proceedings of the IESNA, pp. 73-101, 2003.

N. Sayed, A. V. Stankovic and L. Nerone, "A New Mathematical Tool to Meet IEC 61000-3-2", Conference Proceedings of the IESNA, pp.257-274, 2002.

N. Sayed, A. V. Stankovic and L. Nerone, "Low-Cost High-Power Factor Electrolytic-less Ballast for Fluorescent Lamps", Conference Proceedings of the IESNA, pp.229-255, 2002.

A. V. Stankovic and T. A. Lipo, "A Novel Generalized Control Method for Input Output Harmonic Elimination of the PWM Boost Type Rectifier Under Simultaneous Unbalanced Input Voltages and Input Impedances, "32nd Annual Power Electronics Specialists Conference (IEEE Cat. No.01CH37230) 2001, IEEE 32nd Annual Power Electronics Specialists Conference 2001 pp.1309-14 vol. 3

A. V. Stankovic and T. A. Lipo, "A Novel Control Method for Input Output Harmonic Elimination of the PWM Boost Type Rectifiers Under Unbalanced Operating Conditions, "IEEE APEC 2000, New Orleans, Louisiana, pp.413-419 vol.1, 2000.

A. Stankovic, E. Benedict, V. John and T. A. Lipo, "A Novel Method for Measuring Induction Machine Magnetizing Inductance, "IEEE Industry Applications Society Annual Meeting, New Orleans, Louisiana. Conference Record of the 1997 IEEE Industry Applications Conference Thirty-Second IAS Annual Meeting 1997 pp.234-8 vol.1

M. R. Stojic and A. V. Stankovic, "Parameter Synthesis of a Digital Controller for a DC Motor, "Conference Record of ETAN, Zagreb, pp.239-243 vol.1,1990.

A. V. Stankovic and V. Vuckovic, "Digital tachometer with wide measurement range and fast dynamic response," "Conference Record of JUREMA, pp.56-62 vol.2, 1987.

Workshop Papers

Ana Stankovic "Teaching Electromechanical Energy Conversion", NSF workshop. Teaching of Courses in Power Electronics and Electric Drives. February 20-21. Las Vegas, Nevada.

Invited Presentations

"Input Output Harmonic Elimination of the PWM Boost Type Rectifier Under Unbalanced Operating Conditions", University of Belgrade, June 21, 2002.

AWARDS:

CSU Faculty Merit Award 2006
CSU Faculty Merit Award 2008
CSU Faculty Merit Award 2012
CSU Faculty Merit Award 2013
CSU Faculty Merit Award 2014
Golden Apple Award 2016
CSU Faculty Merit Award 2023
CSU Faculty Merit Award 2024

Fenn College of Engineering Teaching Award 2008
Best MS. Thesis Award-2009 – Ke Chen

TEACHING STRENGTHS / EXPERIENCES

Electromechanical Energy Conversion, EEC 361
Power Electronics I, EEC 470,
Power Electronics II, EEC 572/474
Power Systems, EEC 473/571
Power Electronics and Electric Machines, EEC 673/773
Power Electronics and Electric Machines Lab, EEC 471
Electrical Machine and Drive System Laboratory,
graduate course, ECE 504

Lecturer, University of Wisconsin-Madison
Department of Electrical and Computer Engineering and the
Engineering Outreach Program

Advanced Laboratory, ECE 370
Teaching Assistant, University of Wisconsin-Madison
Department of Electrical & Computer Engineering

Electrical and Electronic Circuits, ECE 376
Teaching Assistant, University of Wisconsin-Madison
Department of Electrical & Computer Engineering

**Fundamentals of Electrical and Electromechanical
Power Conversion, ECE 377**
Teaching Assistant, University of Wisconsin-Madison
Department of Electrical & Computer Engineering

**INSTRUCTIONAL
LABORATORY**

State of the art power electronics and electric machines
instructional laboratory (2004-present)

WORKSHOPS

NSF – Sponsored Faculty Workshop-Teaching of Courses in Power
Electronics and Electric Drives. January 6-7, 2003. Arizona State
University, Tempe, Arizona.

NSF- Sponsored Faculty Workshop – Teaching of Courses in Power
Electronics and Electric Drives. February 20-21, 2004. Las Vegas,
Nevada.

NSF- Sponsored Faculty Workshop – Teaching of Courses in Power
Systems. February 11-13, 2005. Orlando, Florida.

DOE – Sponsored Faculty Workshop at the University of
Minnesota, August 8-10, 2010.

DOE- Sponsored Faculty Workshop at the University of Minnesota,
2011

DOE- Sponsored Faculty Workshop at the University of Minnesota,
2012.

NSF Reviewer

Panel Session
Washington, DC January 2005
Washington DC Feb 4-8, 2009

Keynote Speaker

Line side Converters in Wind Power Applications", VI Regional
Conference - Industrial Energy and Environmental Protection in
Southeastern Europe, Zlatibor, Serbia, 2018.

Program Committee IEEE Energy Tech Conference 2011& 2012

Publication Chair IEEE Energy TECH 2012

Session Chair IEEE PESC 2001, IEEE APEC 2004, IEEE Energy Tech 2011,
IEEE IAS 2011.

Reviewer

IEEE Transactions on Power Electronics, IEEE Transactions on Industrial Electronics, IEEE Transactions on Energy Conversion, IEE Proceedings - Electric Power Applications, IEEE Transactions on Power Delivery, IEEE APEC, IEEE PESC, ASEE and book proposals, IET on Power Electronics.