

Massimo A.G. Mitolo, Ph.D., PEng

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EDUCATION

- May, 29th 1990 Doctoral Degree in Electrical-Electronics Engineering, obtained at University of Naples “Federico II” - Italy; Thesis in *Special Semiconductor Devices* with title: "*Technologies and Performances of DRAM Memories*".
- 1981 High School Diploma in Classics (major in Latin, Greek and Philosophy), obtained at Liceo Classico in Lauria, Italy (1981) (top marks).

PROFESSIONAL LICENSES

- 2004 License as *Professional Journalist* and registration at the Board of Journalists of Rome - Italy; license # 108029.
- May, 8th 1991 License as a *Professional Engineer* obtained at University of Naples “Federico II” and registration at the Board of Engineers in Potenza, Italy.

TEACHING QUALIFICATIONS

- (1991) *Electronics*
- (1991) *Electrotechnology and Applications*
- (1991) *Electrical Systems and Electromechanical Equipment*
- (2001) *Mathematics and Physics*

The above teaching qualifications have been achieved upon winning the corresponding chair competitive examinations for qualified applicants, announced by the Italian Ministry of Education, University and Scientific Research.

- (2001) *Mathematics* (New York City Board of Education)

TRAINING COURSES

- (2013) *ETAP 115N Power System Engineering I* (emphasis on DC systems), 5-Day workshop;
- (2012) *ETAP 115 Power System Engineering I*, 5-Day workshop;
- (2010) OSHA (Occupational Safety and Health Administration): *10-hour Construction Safety and Health*;
- (2009) MTA Long Island Rail Road: *Roadway Protection Training* (49 CFR part 214 Sub part C).
- (2005) Basler Electric: *Relay Application School*, 6-Day course.

WORK HISTORY

- Jan 2012 - present Senior Principal Electrical Engineer, Low-Voltage & Cables Department at ETAP, 17 Goodyear, Irvine, CA 92618.
- performed and developed of modules and interfaces of ETAP (*Electrical Transient Analyzer Program*) program, with emphasis on analysis and grounding of low-voltage systems;
 - Cable Systems Product Manager
 - performed modeling, simulation, planning and operations of power systems;
 - performed system studies;
 - performed business development in Italy.
- Aug 2010 - Dec 2011 Adjunct Professor of “*Intro to Circuit Analysis - Engr III*”. Raritan Valley Community College, Sommerville, NJ 08876.
- Mar 2002 - Dec 2011 Head of the Electrical Department at *CHU & GASSMAN Consulting Engineers*, Middlesex, NJ.
- Performed research, development and design of electrical power distribution systems for industrial, commercial and institutional facilities;
 - performed system studies and produced bid documents;
 - developed and managed projects: created work scope, milestones, metrics, etc.
 - managed the electrical department.
- Sept 2001- Feb 2002 Instructor of *Mathematics* at George Washington HS - New York City.
- Jan 2002 – U.S. correspondent for the Italian newspaper “*L’Eco di Basilicata – Calabria* -

- Jan 2012 *Campania*: holder of a column titled “*Qui Nuova York*”.
- Apr 1991 - Aug 2001 Consultant in “*Forensic Electrical Engineering*” to the Court of Justice (Italy).
- Mar 1991 - Jul 2001 Designed electrical installations as a registered Professional Engineer (Italy).
- Oct 2000 - Aug 2001 Full Professor of “*Electrotechnics and Applications*” at the State Technical Institute, in Lauria (Italy).
- Oct 1992 - Aug 2000 Full Professor of of “*Electronics*” at the State Technical Institute, in Lauria (Italy).
- Sept 1990 - Sept 1992 Adjunct Professor of “*Electrotechnics and Applications*” at the State Technical Institute in Lauria (Italy).

DESIGN EXPERIENCE IN THE U.S.

Partial list of relevant Lockout/Tagout (LOTO) procedures

- Alley Creek Combined Sewer Overflow Retention Facility, New York City (LOTO) (2010);
- Alley Creek Combined Sewer Overflow Retention Facility, New York City: *Distribution System Safety Standard Operating Procedure (SOP)* (2011);
- Alley Creek Combined Sewer Overflow Retention Facility, New York City: *Emergency Generator Safety Standard Operating Procedure (SOP)* (2011);
- Flushing Bay Combined Sewer Outfall Retention Facility, New York City (LOTO) (2010);
- Hunts Point Wastewater Treatment Plant (review and validation of existing LOTO procedures) (2009)

Partial list of relevant projects

- Long Island Rail Road (NY): Soil resistivity tests at the following train stations: Huntington, Great Neck, Little Neck, Medford, Seacliff, and North Port.
- Network Rail, Birmingham (UK): sizing of protective conductors and fault-loop calculations for the low-voltage signaling equipment.
- New Jersey Transit – South Amboy Train Station: Lighting calculation for the platform; Load Flow study.
- Long Island Rail Road (NY)– Atlantic Terminal. *Protective Device Coordination*

study of the electrical system prior to energization of new equipment.

- Port Authority Trans Hudson (PATH) NY-NJ – Harrison Maintenance facility, New Jersey. Design of the electrical distribution system for new Bench Test Equipment and Carpentry areas.
- Newtown Creek Wastewater Treatment Plant (400 mgd Plant Upgrade) – New York City DEP: Load Flow, Short Circuit and Grounding studies.
- Hunts Point Stabilization Project, Interim Plant Upgrade, Phase 1 - New York City DEP: Load Flow, Short Circuit and Grounding studies.
- Bowery Bay WP-237 Interim Plant Upgrade, Phase I - New York City DEP: Load Flow, Short Circuit and Grounding studies.
- Gowanus Pump Station - New York City DEP: lighting calculations, Load flow study.
- 26th Ward Wastewater Treatment Plant - New York City DEP: Emergency Generator design and Short Circuit and Load Flow Studies.
- District of Columbia Water and Sewer Authority - Blue Plains Plant: Blower Starting and Plant Upgrade Short Circuit and Load Flow Studies.
- University of Medicine and Dentistry of New Jersey (UMDNJ) - Replacement of the existing outdoor Substations “G” and “Y”.
- University of Medicine and Dentistry of New Jersey (UMDNJ) – UPS System for surgery rooms.
- Monmouth County Correctional Institution (NJ): design for Repairing/Upgrading Electrical Grounding Systems. Elaboration of equivalent fault-loop circuits to explain the source of stray voltages in the facility, and finding electrical violations to applicable codes and standards.
- Rockland County Sewer District No.1 (NY), Replacement of existing Substation #2 with a new double-ended substation of greater apparent power.
- Rockland County Sewer District No.1 (NY) – High-Voltage Disconnect Switchgears Replacement.
- WP-249 Tallman Island WPCP, College Point, New York City DEP – Short Circuit and Coordination study of the Low-Voltage Temporary Power Distribution System.
- Upper Wallkill Regional WWTP Upgrade and Modernization - Sussex County, New Jersey. Design and construction phase services for the upgrade of the electrical system.
- University of Medicine and Dentistry of New Jersey (UMDNJ) – Design for New

Softstarters in Power Plant Building.

- BASF-YPC, Luhe District, Nanjing, China – Load Flow, Short Circuit and Earth Fault studies for the new expansion project *IPS NASA*, which includes power grid and load expansions of existing facility.
- Ground Grid study for the new 20 MVA, 69 kV/13.8 kV substation at the U.S. STEEL – CLAIRTON WORKS facility in Clairton, PA.

TEACHING EXPERIENCE

- Fall 2011 Adjunct Professor of “*Intro to Circuit Analysis - Engr 111*”,. Raritan Valley Community College, Sommerville, NJ 08876.
- Spring 2011 Adjunct Professor of “*Intro to Circuit Analysis - Engr 111*”,. Raritan Valley Community College, Sommerville, NJ 08876.
- Fall 2010 Adjunct Professor of “*Intro to Circuit Analysis - Engr 111*”,. Raritan Valley Community College, Sommerville, NJ 08876.
- Sept 2001- Feb 2002 Instructor of *Mathematics* at George Washington HS - New York City.
- Oct 2000 - Aug 2001 Full Professor of “*Electrotechnics and Applications*” at the State Technical Institute, in Lauria (Italy).
- Oct 1992 - Aug 2000 Full Professor of “*Electronics*” at the State Technical Institute, in Lauria (Italy).
- Sept 1990 - Sept1992 Adjunct Professor of “*Electrotechnics and Applications*” at the State Technical Institute in Lauria (Italy).

FOREIGN LANGUAGES

Italian: first-language knowledge.

COMPUTER SKILLS

Microsoft Office, Autocad, ETAP, SKM, NI Multisim.

PROFESSIONAL AFFILIATIONS

- *Senior Member* of the Institute of Electrical and Electronics Engineers (IEEE);
- Member of the IEEE Industry Applications Society (IAS).

IEEE COMMITTEES

- **Chair**, *Power Systems Engineering (PSE) Main Technical Committee, Industrial & Commercial Power Systems Department, IEEE Industry Applications Society.*
- **Chair**, *Power Systems Analysis Subcommittee, Industrial & Commercial Power Systems Department, IEEE Industry Applications Society.*
- **Chair**, *Power Systems Grounding Subcommittee, Industrial & Commercial Power Systems Department, IEEE Industry Applications Society.*
- **Chair**, Technical Books Coordinating Committee IEEE P3003.1 “*Recommended Practice for the Grounding of Industrial and Commercial Power Systems*”.
- **Co-Chair**, Technical Books Coordinating Committee IEEE P3002.2 “*Recommended Practice for Conducting Load-Flow Studies of Industrial and Commercial Power Systems*”.
- **Member**, Technical Books Coordinating Committee IEEE P3002.1 “*Recommended Practice for Conducting Short Circuit Studies of Industrial and Commercial Power Systems*”.
- **Member**, Technical Books Coordinating Committee IEEE P3003.2 “*Recommended Practice for Equipment Grounding and Bonding in Industrial and Commercial Power Systems*”.
- *Power System Engineering Committee Administrator, IEEE ScholarOne Manuscript.*
- **Associate Editor**, *Power Systems Engineering Committee.*
- **Associate Editor**, *Energy Systems Committee.*

INVITED PRESENTATIONS

- (2013) “*Latent Touch Voltages in NEC based Low-Voltage Installations*” , IEEE Power & Energy Society (PES) and Industry Applications Society

(IAS) of Orange County, CA.

- (2013) “*The National Electrical Code (NEC) in buildings*”, ETAP Learning Center, Irvine, CA; March 20th 2013.
- (2012) “*Bonding and Grounding of Low-Voltage Systems*”, ETAP Learning Center, Irvine, CA; November 13th 2012.
- (2010) “*Effects of electrical currents passing through the human body and bonding requirements in buildings*”, Middlesex County College, Middlesex, NJ, March, 17th 2010.
- (2009) “*The neutral wire in public low-voltage distribution systems: the American issue*”, I.S.I.S Lauria (Italy), December 17th, 2009;
- (2005) “*Equipment Bonding Jumpers: are they always necessary?*”, IEEE Princeton/Central Jersey Section, “Circuits and Systems” Chapter, Rutgers State University – Busch Campus, May 16th, 2005;
- (2006) “*Stray Voltages and Public-Exposed Lighting Installations*”, IEEE Princeton/Central Jersey Section, “Circuits and Systems” Chapter, Rutgers State University – Busch Campus, November 30th, 2006.

PROVIDED SEMINARS AND WORKSHOPS

- (2013) ETAP 101 “*Design, Analysis, and Operation of Power Systems*”, 1-day Seminar; Birmingham (UK), 13-May-2013
- (2013) ETAP 164 “*Low-Voltage Power System Design and Analysis*”, 4-day Workshop; Birmingham (UK), May 14-17, 2013.

AWARDS AND HONORS

- (2013) Awards and Recognition Committee of the IEEE IAS Industrial and Commercial Power Systems Department:
2012 I&CPS Ralph H. Lee Department Prize Paper Award, for the paper: “*Numerical simulation of heart-current factors and electrical models of the human body*”.
- (2013) Awards and Recognition Committee of the IEEE IAS Industrial and Commercial Power Systems Department:
Power Systems Engineering Committee 2012 Prize Paper Award, for the paper: “*An Effective Semi-Analytical Method for Simulating Grounding Grids*”.

- (2012) **ETAP Thinking Power Award 2012.**
Motivation: *“In recognition of your valuable contribution and teamwork for the design, development, validation, sales and support of ETAP.”*
- (2012) IEEE Power Engineering/Industry Application Society, Orange County Section **2012 Outstanding Engineer Award.**
Motivation: *“For the development of new technical concepts and designs for the advancement of the electrical safety engineering of low-voltage systems”.*
- (2011) **Letter of Commendation** from the *Power Systems Engineering Committee* of the IEEE – IAS – I&CPS.
Motivation: *“For the continued dedication and efforts in coordinating the works of the Power System Analysis Subcommittee as the Chairman”.*
- (2011) **Letter of Commendation** from the *Power Systems Engineering Committee* of the IEEE – IAS – I&CPS.
Motivation: *“For the continued dedication and efforts in coordinating the works of the Power System Grounding Subcommittee as the Chairman”.*
- (2010) I.S.I.S. Lauria “N. Miraglia” (Italy), **XXV I.S.I.S. Award.**
Motivation: *“To Dr. Mitolo, illustrious Lucanian, for his publications, his brilliant and versatile career, his professionalism, his great availability and affability, from the School that has witnessed his formation through his studies and his work”.*
- (2009) Regione Basilicata (Italy), **Lucani Insigni Award.**
Motivation: *“For merits achieved in the scientific field”.*

BOOKS PUBLISHED

M. Mitolo: *“Electrical Safety of Low-Voltage Systems”*, McGraw-Hill, 2009.
ISBN: 007150818X / 9780071508186.

Table of Contents

1. Basic Definitions and Nomenclature
2. Fundamentals of Electrical Safety
3. Mathematical principles of Electrical Safety
4. The Earth
5. Effects of sinusoidal current passing through the human body and safety requirements
6. TT grounding system
7. TN grounding system
8. Protective Multiple Earthing
9. IT grounding system
10. Extra-Low-Voltage systems
11. Earth electrodes, protective conductors and equipotential bonding conductors

12. Safety against overvoltages
 13. Safety against static electricity
 14. Testing Electrical Safety
 15. Applications of electrical safety in special locations and installations
- Appendix A: Sinusoids and Phasors
Appendix B: Fundamental Network Theorems
Appendix C: Fundamental units, symbols and correct spellings

M. Mitolo, F. Freschi: “*Laboratory Manual for Introduction to Electronics: A Basic Approach*”, Prentice-Hall, ISBN-10: 0132954788 (in press).

BOOKS IN PREPARATION

M. Mitolo, Michele Tartaglia and Fabio Freschi: “*Analysis and Design of Grounding Systems*”, John Wiley and Sons, Inc.

PUBLISHED AND ACCEPTED PAPERS IN PEER REVIEWED JOURNALS

2013

1. **M. Mitolo**, Haijun Liu, F. Freschi, M. Tartaglia: “*Latent Potential Differences Between Exposed-Conductive-Parts under Ground-Fault Conditions in Low-Voltage Systems*”, IEEE Industry Applications Magazine
2. **M. Mitolo**: “*On Outdoor Lighting Installations Grounding Systems*”. IEEE Transactions On Industry Applications (in press).
3. **M. Mitolo**, M. Tartaglia, F. Freschi: “*Numerical simulation of heart-current factors and electrical models of the human body*”. IEEE Transactions On Industry Applications, September/October 2013. (*2012 I&CPS Ralph H. Lee Department Prize Paper Award*)
4. **M. Mitolo**, Haijun Liu, Farrokh Shokooh: “*Thermal Sizing and Electric Shock Calculations For Equipment Grounding Conductors*”. IEEE Transactions On Industry Applications, July/August 2013.
5. **M. Mitolo**, M. Tartaglia, F. Freschi: “*An Effective Semi-Analytical Method for Simulating Grounding Grids*”. IEEE Transactions On Industry Applications, pages 252-263, January/February 2013. (*Power Systems Engineering Committee 2012 Prize Paper Award*)

2012

6. G. Parise, **M. Mitolo**: “*A Novel Approach to the Electrical Safety of Low-Voltage Installations: the TN - Island Grounding System*”. European Transactions on Electrical Power 2012; 22: 616-626.
7. **M. Mitolo**, M. Tartaglia: “*An Analytical Evaluation of the Factor k^2 for Protective Conductors*”. IEEE Transactions On Industry Applications, pages 211-217, Vol. 48, No. 1, January/February 2012.
8. **M. Mitolo** et Al: “*User Specifications for Operational and Switching Procedures, a Working Group Report*”. IEEE Transactions On Industry Applications, pages 225-228, Vol. 48, No. 1 January/February 2012.

2011

9. G. Parise, **M. Mitolo**, L. Parise: “*Grounding System in Marinas: the Micro-System approach*”. IEEE Transactions On Industry Applications, pages 2204-2209, Volume 47, No. 5, September/October 2011.
10. G. Parise, L. Martirano, **M. Mitolo**: “*Electrical Safety of Street Light Systems*”, IEEE Transactions on Power Delivery, pages 1952-1959, Volume 26, number 3, July 2011.
11. **M. Mitolo**, M. Tartaglia, F. Freschi: “*To Bond Or Not To Bond: That Is The Question*”, IEEE Transactions On Industry Applications, pages 989-995, Volume 47, No. 2, March/April 2011.
12. **M. Mitolo**, M. Tartaglia, F. Freschi, M. Pastorelli: “*Ecodesign of Low-Voltage Systems and Exposure to ELF Magnetic Fields*”, pages 984-988, IEEE Transactions On Industry Applications, Volume 47, No. 2, March/April 2011.

2010

13. **M. Mitolo**: “*Of Electrical Distribution Systems with Multiple Grounded Neutrals*”, IEEE Transactions On Industry Applications, pages 1541-1546, Volume 46, No. 4, July/August 2010.
14. **M. Mitolo**: “*Shock Hazard in the Presence of Protective Residual Current Devices*”, IEEE Transactions On Industry Applications, pages 1552-1557, Volume 46, No. 4, July/August 2010.
15. **M. Mitolo**: “*Shall Masts and Metal Structures Supporting Antennae be grounded?*”, IEEE Transactions On Industry Applications, pages 1547-1551, Volume 46, No. 4, July/August 2010.
16. **M. Mitolo**, M. Tartaglia: “*An Analytical Evaluation of the prospective I^2t to Assess Short Circuit Capabilities of Cables and Busways*”. IEEE Transactions on Power Delivery, Volume 25, No. 3, pages 1334-1339, July 2010.

17. **M. Mitolo**, M. Tartaglia, S. Panetta: “*Of International Terminology and Wiring Methods Used in the Matter of Bonding and Earthing of Low-Voltage Power Systems*”, IEEE Transactions On Industry Applications, Volume 46, No. 3, pages 1089-1095, May/June 2010.
18. **M. Mitolo**, P. E. Sutherland, R. Natarajan: “*Effect of High Fault Currents on Ground Grid Design*”, IEEE Transactions On Industry Applications, Volume 46, No. 3, pages 1118-1124, May/June 2010.

2009

19. **M. Mitolo**: “*Is it possible to calculate Safety?*”, IEEE Industry Applications Magazine, May-June 2009, pages 31-35.

2008

20. **M. Mitolo**: “*Grounding the Neutral of Electrical Systems Through Low Resistance Grounding Resistors: an application case*”. IEEE Transactions On Industry Applications, Vol. 44, No. 5, September/October 2008, pages 1311-1316.
21. **M. Mitolo**: “*Protective Bonding Conductors: an IEC point of view.*” IEEE Transactions On Industry Applications, Vol. 44, No. 5, September/October 2008, pages 1317-1321.

PUBLISHED ARTICLES IN TECHNICAL JOURNALS

2010

1. **M. Mitolo**: “*Of the Fault Currents at the Service Entrance of Industrial Facilities*” (in Italian), “Il Giornale dell’Installatore Elettrico”, March 2010, pages 48-51. Pub. Reed Business Information, Milan, Italy.

2009

2. **M. Mitolo**: “*Stray currents in electrical transit systems*” (in Italian), “Il Giornale dell’Installatore elettrico”, no. 10, July, 15 2009, pp. 24-26. Pub. Reed Business Information, Milan, Italy.

2007

3. **M. Mitolo**: “*Electrical Fires*” (in Italian), “L’Impianto Elettrico”, June 2007, pp. 62-66, Pub. Tecniche Nuove, Milan, Italy.

2006

4. **M. Mitolo:** “*Per Cent Voltage-Impedance of Transformers: the true interpretation*” (in Italian), “L’Impianto Elettrico”, December 2006, pp. 42-45, Pub. Tecniche Nuove, Milan, Italy.
5. **M. Mitolo:** “*Calculating the Incident Energy produced by Electric Arcs*” (in Italian), “L’Impianto Elettrico”, October 2006, pp. 30-33, Pub. Tecniche Nuove, Milan, Italy.
6. **M. Mitolo:** “*Grounding the neutral in industrial facilities*”, (in Italian), L’Impianto Elettrico, n° 6, June 2006, pp. 18-22, Pub. Tecniche Nuove, Milan, Italy.
7. **M. Mitolo:** “*Animal Caused Electric Outages*”, (in Italian), “L’Impianto Elettrico”, April 2006, pp. 44-48, Pub. Tecniche Nuove, Milan, Italy.
8. **M. Mitolo:** “*American Working Space about Equipment*”, (in Italian), “TuttoNormel”, February 2006, Pub. TNE, Torino, Italy.
9. **M. Mitolo:** “*Ground Differential Protection for Transformers and Generators*”, (in Italian), “L’Impianto Elettrico”, January 2006, pp. 19-23, Pub. Tecniche Nuove, Milan, Italy.

2005

10. **M. Mitolo:** “*Fire Insurance Policy: in the USA its cost depends on the conditions of the electrical installations*”, (in Italian), “TuttoNormel”, March 2005, pp. 20-22, Pub. TNE, Torino, Italy.

2004

11. **M. Mitolo:** “*Short Circuit Calculation Methodologies: the IEEE point of view*”, (in Italian), “L’Impianto Elettrico”, December 2004, pp. 20-25, Pub. Tecniche Nuove, Milan, Italy.
12. **M. Mitolo:** “*Short Circuit Calculation Methods*”, “EC&M - The Magazine of Electrical Design, Construction & Maintenance”, October 2004, pp.54-58, Pub. Primedia, USA.
13. **M. Mitolo:** “*Harmonic Voltage and Current Distortion*”, (in Italian), “L’Impianto Elettrico”, September 2004, pp.82-87, Pub. Tecniche Nuove, Milan, Italy.

PUBLISHED IN PEER REVIEWED CONFERENCE PROCEEDINGS

2013

- [1] **M. Mitolo**, Haijun Liu, Jun Qiu: “*Ground-Fault Loop Impedance Calculations in Single-Phase Systems*”. Proceedings of IEEE – IAS – I&CPS Technical conference, Stone Mountain (GA), May 2013.
- [2] **M. Mitolo**, Peman Montazemi: “*An Analytical Quantification of Errors Due to the Use and Misuse of Cable Positive-Sequence Impedances Provided by the NEC*”. Proceedings of IEEE – IAS – I&CPS Technical Conference, Stone Mountain (GA), May 2013.
- [3] **M. Mitolo**, Erling Hesla, Bob Giese, Tom Johnson: “*Economics of DC power distribution for motors*”. Proceedings of IEEE – IAS – I&CPS Technical Conference, Stone Mountain (GA), May 2013.
- [4] **M. Mitolo**, Haijun Liu, F. Freschi, M. Tartaglia: “*Latent Potential Differences Between Exposed-Conductive-Parts under Ground-Fault Conditions in Low-Voltage Systems*”. Proceeding of IEEE – IAS Electrical Safety Workshop, March 2013, Dallas, TX.

2012

- [5] **M. Mitolo**, M. Tartaglia, F. Freschi: “*Numerical simulation of heart-current factors and electrical models of the human body*”. IEEE – IAS Annual Meeting, October 2012, Las Vegas, NV.
- [6] **M. Mitolo**, Haijun Liu, Farrokh Shokooh: “*Thermal Sizing and Electric Shock Calculations For Equipment Grounding Conductors*”. IEEE – IAS Annual Meeting, October 2012, Las Vegas, NV.
- [7] **M. Mitolo**, G. Parise, L. Martirano: “*Safety Evolution of Residential Microsystems*”. IEEE Energycon 2012, Florence, Italy, September 2012.
- [8] **M. Mitolo**, M. Tartaglia, F. Freschi: “*An Effective Semi-Analytical Method for Simulating Grounding Grids*”. IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Louisville KY, May 2012.

2011

- [9] **M. Mitolo**, M. Tartaglia: “*An Analytical Evaluation of the Factor k^2 for Protective Conductors*”. (In Plenary Session), IEEE-IAS Industry Applications Society 46th Annual Meeting, Orlando, FL, October 2011.
- [10] **M. Mitolo** et Al.: “*User Specifications for Operational and Switching Procedures, a Working Group Report*”. IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Newport Beach, CA, May 2011.

- [11] G. Parise, **M. Mitolo**, L. Parise: “*Grounding System in Marinas: the Micro-System approach*”. IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Newport Beach, CA, May 2011.

2010

- [12] **M. Mitolo**, M. Tartaglia and F. Freschi “*To Bond Or Not To Bond: That Is The Question*”, in Plenary Session, IEEE-IAS Industry Applications Society 45th Annual Meeting, Houston, TX, October 4-8, 2010.
- [13] **M. Mitolo**, G. Parise, L. Martirano, T. Balwin, S. Panetta “*Grounding of Distributed Low-Voltage Loads: the Street Lighting Systems*”, IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Tallahassee, FL, May 2010.
- [14] **M. Mitolo**, M. Tartaglia, F. Freschi and M. Pastorelli “*Ecodesign of Low-Voltage Systems and Exposure to ELF Magnetic Fields*”, IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Tallahassee, FL, May 2010.

2009

- [15] **M. Mitolo**, “*Of international terminology and wiring methods used in the matter of bonding and earthing of low-voltage power systems*”, in Plenary Session, IEEE Industry Applications Society 44th Annual Meeting, Houston, TX, October 4-8, 2009, (with M. Tartaglia and S. Panetta).

2008

- [16] **M. Mitolo**, “*Evaluation of the Prospective Joule Integral to assess the limit Short Circuit Capability of Cables and Busways*”, IEEE-IAS Industry Applications Society 43rd Annual Meeting, Edmonton, October 5-9 2008, (with M. Tartaglia).
- [17] **M. Mitolo**, “*On Modeling Utility Substations Equivalent Source*”, IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Clearwater Beach, FL, May 4-7, 2008. (with D. Fredericks). Proceedings of the Conference.
- [18] **M. Mitolo**, “*Equipment Bonding and Electrical Safety in the Water Industry*”, the 80th Annual Meeting of the New York Water Environment Association (NYWEA), New York City, February 6th, 2008.

2007

- [19] **M. Mitolo**, “*Low Voltage Distribution Transformers: Analysis of the Exposure to ELF Magnetic Fields*”, IEEE-IECON, Taipei-Taiwan, November 2007. (With M. Tartaglia, F. Freschi and M. Pastorelli).

- [20] **M. Mitolo**, “*Evaluation of Voltage Exposures due to AC/DC Stray Currents*”, IEEE-IAS Industry Application Society 42nd Annual Meeting, New Orleans, September 2007. (With M. Tartaglia, G. Gruosso and A. Canova).
- [21] **M. Mitolo**, “*Safety and Risk Analysis of Standard Protective Measures against Electric Shock*”, IEEE-IAS Industry Application Society 42nd Annual Meeting, New Orleans, September 2007.
- [22] **M. Mitolo**, “*Shall Masts and Metal Structures Supporting Antennae be grounded?*” IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Edmonton, Canada, May 6-10, 2007.
- [23] **M. Mitolo**, “*Shock Hazard in the Presence of Protective Residual Current Devices*”, IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Edmonton, Canada, May 6-10, 2007.
- [24] **M. Mitolo**, “*On the Application of Variable Frequency Drives in the Water Industry*”, the 79th Annual Meeting of the New York Water Environment Association (NYWEA), New York City, February 7th, 2007.

2006

- [25] **M. Mitolo**, “*Saving Energy with Variable Frequency Drives in Wastewater Treatment Plants: An Application Case*”, The Energy Management Specialty Conference of the New York State Energy Research and Development Authority (NYSERDA), November 8-9, 2006, Cooperstown, NY.
- [26] **M. Mitolo**, “*On Outdoor Lighting Installations Grounding Systems*”, IEEE-IAS Industry Application Society 41st Annual Meeting, Tampa, FL, October 2006, Conference Record, Volume 5, pp. 2224-2229.
- [27] **M. Mitolo**, “*Effects of Electrical Currents and Bonding Requirements in Buildings*”, IEEE-IAS Industry Application Society 41st Annual Meeting, Tampa, FL, October 2006, Conference Record, Volume 4, pp.1816-1820.
- [28] **M. Mitolo**, “*Effect of High Fault Currents on Ground Grid Design*”, IEEE IAS Industry Application Society 41st Annual Meeting, Tampa, FL, October 2006, Conference Record, Volume 4, pp. 1808 – 1815 (with P. E. Sutherland and R. Natarajan).
- [29] **M. Mitolo**, “*TN-Island Grounding System and the House of the Future*”, IEEE-IAS Industry Application Society 41st Annual Meeting, Tampa, FL, October 2006, Conference record, Volume 4, pp.1826-1830, (with G. Parise and L. Martirano).

- [30] **M. Mitolo**, “*TN - Island Grounding System*”, IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Dearborn, Mi, May 2006 (with G. Parise).
- [31] **M. Mitolo**, “*Of Electrical Distribution Systems with Multiple Grounded Neutrals*”, IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Dearborn, Mi, May 2006.
- [32] **M. Mitolo**, “*An IEC Point of View on Grounding Systems of Outdoor Lighting Installations*”, Electric West 2006 Exposition & Conference, session 407, Las Vegas, March 2nd, 2006.
- [33] **M. Mitolo**, “*Plant Emergency Power Generation after August 2003*”, presented at the 78th Annual Meeting of the New York Water Environment Association (NYWEA), New York City, February 7th, 2006 (with W. Gassman and G. Malacos).

2005

- [34] **M. Mitolo**, “*Grounding the Neutral of Electrical Systems through Low Resistance Grounding Resistors: an application case*”, IEEE Industry Applications Society 40th Annual Meeting, Hong Kong, October 2-6, 2005. Conference Record, Vol. 2, pp. 1497-1502.
- [35] **M. Mitolo**, “*Protective Bonding Conductors: an IEC point of view.*” IEEE-IAS “Industrial & Commercial Power Systems Technical Conference”, Saratoga Springs - New York, May 11th, 2005; pp. 178–183.

SUBMITTED MANUSCRIPTS

- [1] **M. Mitolo**, F. Freschi, M. Tartaglia: “*Interferences Phenomena between Separate Grounding Systems*”. Accepted for presentation at IEEE – IAS – 48th Annual Meeting, Orlando (FL), October 2013.
- [2] **M. Mitolo**, et al: “*Ecodesign and Ecomanagement of the electrical systems of roadway tunnels*”. Accepted for presentation at IEEE – IAS – 48th Annual Meeting, Orlando (FL), October 2013.

FIRE ACADEMY DIPLOMAS

1. *Firefighter I* certification issued on 07-07-2006 at *Middlesex County Fire Academy*, NJ, Class 02-1001-06.
2. *Firefighter I*, State of New Jersey Certification, Division of Fire Safety, issued on 08-25-2006.

3. "*Hazardous Materials Awareness - 06007*", certificate issued on 04-21-2006 by New Jersey State Police "Special Operations Section".
4. "*Hazardous Materials Operations - 06009*", certificate issued on 06-21-2006 by New Jersey State Police "Special Operations Section".
5. "*CBRNE Operations – 06088*", certificate issued on 06-23-2006 by New Jersey State Police "Special Operations Section".
6. "*Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED)*", certificate issued on 07-05-06 by the Raritan Bay Medical Center.
7. "*National Incident Management System, NIMS IS-700*", certificate issued 09-25-06 by the Federal Emergency Management Institute (FEMA) - U.S. Department of Homeland Security.
8. "*Intermediate Incident Command, ICS I-200*", certificate issued on 11-12-2006 by *Piscataway Township Fire School, NJ*.
9. "*Radiological Emergency Management, IS-003*", certificate issued on 12-5-2006 by the Federal Emergency Management Institute (FEMA) - U.S. Department of Homeland Security.
10. "*Radiological Emergency Response, IS-301*", certificate issued on 12-5-2006 by the Federal Emergency Management Institute (FEMA) – U.S. Department of Homeland Security.
11. "*Building for the Earthquakes of Tomorrow, IS-008.A*", certificate issued on 01-10-2007 by the Federal Emergency Management Institute (FEMA) – U.S. Department of Homeland Security.
12. "*Retrofitting Flood Prone Residential Structures, IS-00279*", certificate issued on 01-11-2007 by the Federal Emergency Management Institute (FEMA) – U.S. Department of Homeland Security.
13. "*Special Events Contingency Planning for Public Safety Agencies, IS-00015.A*", certificate issued on 01-13-2007 by the Federal Emergency Management Institute (FEMA) – U.S. Department of Homeland Security.
14. "*Introduction to Residential Coastal Construction, IS-00386*", certificate issued on 01-14-2007 by the Federal Emergency Management Institute (FEMA) – U.S. Department of Homeland Security.
15. "*Disaster Basics, IS-292*", certificate issued on 02-17-2007 by the Federal Emergency Management Institute (FEMA) – U.S. Department of Homeland Security.

16. *“Large Incident Command, ICS I-300”*, certificate issued on 07/30/07 by the Piscataway Township Fire School, NJ.
17. *“National Response Plan (NRP), an Introduction, IS-00800.A”*, certificate issued on 09-18-2007 by the Federal Emergency Management Institute (FEMA) – U.S. Department of Homeland Security.