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PERSONAL

- Date of Birth: June 21, 1964
- Place of Birth: Karak, Jordan
- Nationality: Jordanian
- Marital Status: Married – Four Kids

EDUCATION

- Ph.D., Electrical Engineering, [Mississippi State University](#), 2000.
- M.Sc., Electrical Engineering, [Jordan University of Science & Technology](#), 1989.
- B.Sc., Electrical Engineering, [University of Jordan](#), 1987.

PH.D. DISSERTATION

“Lifetime Characteristics of Magnet Wires under High Frequency Pulsating Voltage and High Temperature”, [Mississippi State University](#), Mississippi State, 2000.

M.SC. THESIS

“Dynamic Stability Evaluation of Multimachine Power Systems Using Synchronizing and Damping Torques”, [Jordan University of Science & Technology](#), Jordan, 1989.

EMPLOYMENT

- **Chairman**, [Electrical Engineering Department](#), [School of Engineering](#), [The University of Jordan](#), September 2018 - present.
- **Professor**, [Electrical Engineering Department](#), [School of Engineering](#), [The University of Jordan](#), May 2018 - present.
- **Associate Professor**, [Electrical Engineering Department](#), [School of Engineering](#), [The University of Jordan](#), September 2014-October 2018.
- **Chairman**, [Electrical Power Engineering Department](#), [Hijawi Faculty for Engineering Technology](#), [Yarmouk University](#), September 2013-August 2014.
- **Associate Professor**, [Electrical Power Engineering Department](#), [Hijawi Faculty for Engineering Technology](#), [Yarmouk University](#), February 2013-August 2014.
- **Associate Professor**, [Department of Electrical and Computer Engineering](#), [Sultan Qaboos University](#), Muscat, Oman, August 2008-January 2013.
- **Associate Professor**, [Electrical Power Engineering Department](#), [Hijawi Faculty for Engineering Technology](#), [Yarmouk University](#), October 2006-August 2008.
- **Assistant Professor**, [Electrical Power Engineering Department](#), [Hijawi Faculty for Engineering Technology](#), [Yarmouk University](#), February 2001-October 2006.
- **Research Assistant**, [High Voltage Laboratory](#), Mississippi State University, June 1997 – December 2000.
- **Teaching Assistant**, [Electrical and Computer Engineering Department](#), Mississippi State University, January 1997-May 1997.
- **Lecturer**, [Electrical Engineering Department](#), [King Fahd University of Petroleum & Minerals](#), Dhahran, Saudi Arabia, January 1990 -June 1996.
- **Teaching Assistant**, [Jordan University of Science & Technology](#), Jan. 1988-Dec. 1989.

CURRENT RESEARCH INTEREST

- Application of Neural Networks and Signal Processing to Power System Engineering
- Power System Quality and Harmonics
- Digital Power System Protection
- Renewable Energy
- High Voltage Engineering
- Power System Dynamic Stability and Control.

COURSE TEACHING

- **Courses and Labs at University of Jordan (September 2014-Present)**

1. Advanced Power System Protection – Postgraduate course
2. Power System Quality – Postgraduate course
3. High Voltage Engineering – Postgraduate course
4. Power System Analysis I
5. Power System Analysis II
6. Power System Protection
7. Electric Machines I
8. Electric Machines II
9. Electrical Circuit II
10. General Electrical Machines.
11. Power System Laboratory
12. Electrical Machines Laboratory
13. Final Year Projects I & II

- **Courses and Labs at Sultan Qaboos University (Sept. 2008-Jan. 2013)**

1. Digital Power System Protection – Postgraduate Course
2. Power System Quality and Harmonics
3. Power System Analysis (Theory and Lab)
4. Power System Protection (Theory and Lab)
5. High Voltage Engineering (Theory and Lab)
6. Power Distribution Systems
7. Artificial Intelligence
8. Electric Circuits (Theory and Lab)
9. Electric Engineering Fundamentals (Theory and Lab)
10. Electrical Engineering Technology (Theory and Lab)
11. Signals and Linear Systems
12. Final Year Projects I & II

- **Courses and Labs at Yarmouk University (Jan. 2001-Aug. 2014)**

1. Advanced High Voltage Engineering – Postgraduate course
2. Power System Protection – Postgraduate course
3. Modern Control Theory – Postgraduate course
4. MicroElectroMechanical Systems (MEMS) – Postgraduate course
5. Power System Analysis I & II (Theory and Lab)
6. High Voltage Engineering
7. Power System Quality
8. Electric Machines I & II (Theory and Lab)
9. General Electric Machines (Theory and Lab)

10. Control Systems (Theory and Lab)
11. Electric Circuits I & II (Theory and Lab)
12. Numerical Analysis (Theory and Lab)
13. Primary and Secondary Undergraduate Projects
14. Electric Workshops (Lab)

• **Courses and Labs at King Fahd University of Petroleum & Minerals (Jan 1990-June 1996)**

1. Electric Circuits (Theory and Lab)
2. Network Theory (Theory)
3. Electrical Systems (Theory and Lab)
4. Electric Machines (Theory and Lab)
5. Electric Energy Engineering (Theory and Lab)
6. Electrical Installation (Theory and Lab)
7. Power Electronics (Lab)

MS THESIS SUPERVISION and CO-SUPERVISION

1. Rawan Qubaah, "Assessment of Discrimination Techniques between Power Swing and Faults", Expected May 2022.
2. Abdullah Abu-Lihyeh, "Estimation of Power Systems Harmonics: A Comparative Study," The University of Jordan, Expected May 2022.
3. Mohammed Alziq, "Adaptive Distance Protection of Transmission Lines in the Presence of SVC Using Artificial Neural Network Approach," The University of Jordan, Expected December 2021.
4. Laith Al-Barari, "CART-Based Decision Tree Distance Protection for Series Compensated Transmission Line", Expected December 2021.
5. Amro Sarayra, "Study of a Damping Control Based Predictive Strategy on an Inter-Area Power System," The University of Jordan, Expected December 2021.
6. Ola Ananbeh, "DC Offset Removal Method for Numerical Relays Using Artificial Intelligence Based Technique," The University of Jordan, Expected December 2021.
7. Mohammed Abu Huwaileh, "Calculation of Power Quality Indices for Unbalanced Systems and Unbalanced Harmonics Condition Using Symmetrical Components Method," The University of Jordan, Expected August 2021.
8. Marwan Hawamdeh, "An Effective Protection Scheme for Inverter-Based MV Microgrids," The University of Jordan, August 2021.
9. Amer Alrashdan, "Artificial Neural Network-Based Protection Scheme for Transmission Lines Connecting Wind Farms," The University of Jordan, May 2021.
10. Sara Sultan Al-Tamimi, "A Nature-Inspired Maximum Power Point Tracking Technique for Photovoltaic Systems," The University of Jordan, May 2021.
11. Zaid Nadi, "Comprehensive Protection Scheme of Doubly-Fed-Induction," The University of Jordan, December 2020.
12. Asem Bani Salameh, "Optimal Parameter Selection of Hybrid Active Power Filter Using Evolutionary Based Algorithm," The University of Jordan, May 2020.
13. Mahmood Al-Tawalbeh, "The Economic Viability of Stand-Alone Solar Photovoltaic System for Long Term Construction Projects in Jordan," The University of Jordan, May 2020.
14. Fadi AlAlamat, "Protection of Photovoltaic Integrated Medium Voltage Microgrids," The University of Jordan, December 2019.

15. Alaa Farhan “A New Maximum Power Point Tracking (MPPT) Technique for Photovoltaic Systems under Steady State and Partial Shading Conditions,” The University of Jordan, December 2018.
16. Fatima Alkasagi, “The Effectiveness of Risk Management In Minimizing Claims and Disputes in Public Construction Projects in Jordan”, The University of Jordan, May 2017.
17. Salma Azzam, “Connecting Renewable Energy Plants to the National Grid of Jordan: Technical Constraints and Proposed Requirements”, The University of Jordan, December 2016.
18. Dalia Abu-Eideh, “Extraction of the Third Harmonic Current of Surge Arrester Leakage Current using Hilbert Transform and Prony Analysis Approach”, Yarmouk University, January 2016.
19. Dua’a Talal Al-Sha’abi, “Long Term Electric Load Forecasting based on ANN and Regression Models: A case study of the Jordanian network”, Yarmouk University, May 2015.
20. Rafat Aljarrah, “Envelope Based Classification of Voltage Variations Using Artificial Neural Network”, Yarmouk University, March 2015.
21. Amani Alomari, “Discrimination between Transformer Inrush Current and Internal Fault using Least-Square-NN Approach”, Yarmouk University, February 2015.
22. Darwish A. Abu Qdoum, “Combined MUSIC-DVR Technique for Voltage Flicker Estimation and Mitigation, Yarmouk University, January 2015.
23. M. H. Gharaibeh, “Motion Planning for Mobile Robot in Dynamic Environments Using Artificial Potential Field Method and Fuzzy Logic”, Yarmouk University, May 2008.
24. Amer A. Hammad, “Estimation of Synchronizing and Damping Torques Using Adaptive Neuro-Fuzzy System (ANFIS)”, Yarmouk University, December 2007.
25. Iyad Maaitah, “Neural Network Identification and Control of DC Motors Using Neural Network Based Approach”, Yarmouk University, May 2006.
26. Jaroushi M. Jaroushi, “Fuzzy Logic-Based Power System Stabilizer Design”, Yarmouk University, November 2005.

HONORS AND AWARDS

- Certificate of Appreciation, Jordan Engineers Association (JEA), Amman, March 2020.
- Certificate of Appreciation, IEEE Jordan Section, Amman, June 2017.
- Certificate of Appreciation, 2017 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, April 2017.
- Certificate of Appreciation, 2015 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, November 2015.
- Certificate of Appreciation, 2013 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, December 2013.
- Certificate of Appreciation, 2013 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, December 2011.
- Certificate of Appreciation, Mazoon Electricity Company, Oman, September 2009.
- Certificate of Appreciation, 4th IEEE GCC Conference & Exhibition, Bahrain, November 2007.
- Recipient of The Hisham Hijjawi Academic Distinction Award in the field of Scientific Research, [The Scientific Foundation of Hisham Adeb Hijjawi](#), Amman, Jordan, 2006.
- Recipient of The Hisham Hijjawi Academic Distinction Award in the field of Scientific Research, [The Scientific Foundation of Hisham Adeb Hijjawi](#), Amman, Jordan, 2005.
- Senior Membership, [IEEE](#), USA, 2004.
- Outstanding Academic and Leadership Achievements Award, [Mississippi State University](#), 2000.

- Barrier fellowship for Summer 2000, [Mississippi State University](#).
- Herein Award, [Mississippi State University](#), April 2000.
- Nominated for the “2000 Graduate Student Research” Award, [MS University](#).
- Nominated for the “Research Assistant of the Year 2000” Award, [MS University](#).
- Research Assistantship, [High Voltage Laboratory](#), [Mississippi State University](#), May 1997-December 2000.
- [Eta Kappa Nu \(EKN\)](#) Honor Association, [Mississippi State University](#), 1998
- Teaching Assistantship, [Mississippi Sate University](#), January 1997 - May 1997.
- Ph.D. Scholarship, [Yarmouk University](#), August 1996-May 2000.
- Distinguished Lecturer, [King Fahd University of Petroleum & Minerals](#), 1991-1996.
- Certificate of Appreciation, [King Fahd University of Petroleum & Minerals](#), 1996.
- Teaching Assistantship, [Jordan University of Science & Technology](#), Jan.1988-Dec. 1989.

PROFESSIONAL ORGANIZATIONS AFFILIATION

- Chair, IEEE Jordan Section Joint PE/DEI Chapter, March 2016 - December 2017.
- Treasurer, IEEE Oman Section, PE Chapter, January 2011 - November 2013.
- Treasurer, IEEE Jordan-Section (January 2002 - December 2009).
- Treasurer, IEEE Jordan Section, PE/DEI Chapter, 2004 - 2008.
- Counselor, Yarmouk University Student Branch, July 2008 - December 2010.
- Senior Member, IEEE Power Engineering Society, 2004 - present.
- Member, IEEE Power Engineering Society, 1993 - 2004.
- Member, IEEE Dielectrics and Electrical Insulation Society, 2008 - present.
- Jordan Engineers Association (JEA), 1989 - present.

PROFESSIONAL DEVELOPMENT ACTIVITIES

- Member of the Technical Program Committee (TPC) of 6th IEEE International Energy Conference (ENERGYCON2020), 2020, Tunisia.
- Advisory Board Member of the 20th World Conference on Applied Science, Engineering and Technology (WCASET-19).
- Editorial Board Member, International Journal of Electrical and Power Engineering, Medwell Publications.
- Member of the Technical Program Committee (TPC-Track Chair) of JEEIT 2019, Jordan.
- Member of the Technical Program Committee (TPC-Track Chair) of AEECT 2017, Jordan.
- Member of the Technical Program Committee (TPC-Track Chair) of AEECT 2015, Jordan.
- Member of the Technical Program Committee (TPC) of AEECT 2013, Jordan.
- Member of the Technical Program Committee (TPC) of AEECT 2011, Jordan.
- Member of the Technical Program Committee (TPC) of 2011 IEEE GCC, UAE.
- Member of the Technical Program Committee (TPC) of 2011 JIEEEEC, Jordan.
- Member of the Technical Program Committee (TPC) of the International Conference of Electric Power and Energy Conversion, American University of Sharjah, EPEC2009.
- Member of the Organizing Committee of the 9th International Conference on Communications, Computers and Power (ICCCP09)
- Member of the Organizing Committee of the 6th WSEAS International Conference on Power Systems (PE'06), Lisbon, Portugal, September 22-24, 2006.

PROFESSIONAL ORGANIZATIONS SERVICES

- **Reviewer for the following International Journals and Conferences:**
 - International Transactions on Electrical Energy Systems
 - Sustainable Cities and Society Journal

- Journal of Intelligent and Fuzzy Systems
 - Jordan Journal of Electrical Engineering
 - The Journal of Engineering Research (TJER)
 - International Conference on Electrical, Electronic, Communication and Control Engineering (ICEECC2019).
 - IEEE Conference on Energy Conversion (CENCON2015) and (CENCON2017)
 - Int. Conf. on Electrical, Electronic, Communication and Control Engineering (ICEECC2017)
 - IEEE Student Conference on Research and Development (SCORED2017).
 - IEEE-PECON 2012, PECON 2014, PECON 2016, PECON 2018 and PECON 2020.
- **Reviewer for The Research Council (TRC), Oman**
 - **Reviewer for the Scientific Research Support Fund (SRF), Jordan**

UNIVERSITY, COLLEGE AND DEPARTMENT STANDING/SELECTED COMMITTEES

- **University of Jordan 2014-Present**
 - Chair of Graduate Studies Committee, 2018-present.
 - Member of ABET Steering Committee, 2015-present.
 - Member of Course Transfer Committee, 2015-present.
 - Member of Postgraduate Studies Committee, 2017-2018.
 - Member of Study Plan Committee, 2017-present.
 - Member of Scientific Research Committee, 2014-2016.
 - Member of Aqaba University, 2017.
 - Member of Reviewing and Checking the Documents of The University of Jordan PV Project, 2017.
 - Member of the Power System M.Sc. Program Committee, 2016.
- **Sultan Qaboos University 2008-2012**
 - Member of Postgraduate Studies & Scientific Research Committee, 2009-2012.
 - Member of the Strategic Planning Committee, 2010-2012.
 - Member of Accreditation (ABET), Curriculum & Timetabling Committee, 2009-2012.
 - Member of Electrical Power Engineering Research Group (EPERG), 2009-2012.
- **Yarmouk University 2001-2014**
 - Chair of the Industrial Training Committee, 20013.
 - Member of the Postgraduate Studies Committee, 2013.
 - Member of the College Budget Committee, 2013.
 - Member of the Degree Plans and Exams Committee, 2013.
 - Member of Quality Control Committee, 2013. Member of Faculty Promotion Committee, 2007. Member of Scientific Research Committee, 2007.
 - Member of Power System MS Program Committee, 2007.
 - Member of ABET Curriculum Development Committee, 2006.
 - Member of Faculty for Factory Committee, 2006-2007.
 - Member of Students Misconduct Judicial Committee, 2005-2006.
 - Chairman of Election Committee, Student Union, Power Engineering Department, 2004.
 - Member of the ICT Conference Organizing Committee, Yarmouk University, 2004.

- Member of the Undergraduate Power System Program Curriculum Committee, 2003-2005. Member of the Graduate Power System M.Sc. Program Curriculum Committee, 2004.
- Member of the Graduate Industrial Automation M.Sc. Program Committee, 2003.
- Member of Hijjawi College Council, 2003-2004.
- Member of the Department Course Transfer Committee, 2004-2006.
- Student Advising, 2002-2008.
- **King Fahd University of Petroleum & Minerals**
 - ♦ Planning and Continuing Education Committee
 - ♦ Project/Seminar and Speaker Committee
 - ♦ Laboratory Supervision and Development

RESEARCH PUBLICATIONS

Book Chapter

- [B-1] **Eyad A. Feilat**, "Lifetime Assessment of Electrical Insulation," Chapter 11, in the book *Electric Field*, InTechOpen, 2018/5/23, ISBN 978-1-78923-187-8, pp. 231-253.

Journal Papers

- [J-1] A. H. Abu Yahya, A. A. Shawish, M. B. Al-Jilani, **E. A. Feilat**, "HOMER-Based Optimal Design of Hybrid Power Systems for Educational Institution," *International Journal of Advanced Trends in Computer Science and Engineering (IJATCSE)*, Vol. 9, No. 5, October 2020, pp. 8811-8818.
- [J-2] M. I. H. Al-Tawalbeh, **E. A. Feilat**, "A Comparative Assessment of Economic Viability of Off-Grid Generation Power Systems," *International Journal of Advanced Trends in Computer Science and Engineering (IJATCSE)*, Vol. 9, No. 3, May/June 2020, pp. 3809-3815.
- [J-3] M. A. Saaideh, O. Ananbeh, T. Almomani, **E. A. Feilat**, H. J. Khasawneh, "Power quality audit of a school of engineering building - case study," *International Journal of Emerging Trends in Engineering Research*, Vol. 8, No. 1, January 2020, pp. 151-156.
- [J-4] Tamadher Almomani, **E. A. Feilat**, I.A. Metwally, "Internal and External Leakage Current Decomposition of Surge Arresters Using Discrete Fourier Transform," *International Journal of Advanced Trends in Computer Science and Engineering*, Vol. 8, No. 5, September - October 2019, pp. 2453 - 2458.
- [J-5] Mohammed A. Haj-ahmed, **Eyad A. Feilat**, Hussam J. Khasawneh, Ahmed. F. Abedalhadi, Alaa Awwad, "Comprehensive Protection Schemes for Different Types of Wind Generators," *IEEE Transactions on Industry Applications*, 54(3), pp. 2051 - 2058, May/June 2018.
- [J-6] **E. A. Feilat**, D. T. Al-Sha'abi, M. A. Momani, "Long-Term Load Forecasting Using Neural Network Approach for Jordan's Power System," *Engineering Press*, 1(2), 2017, pp. 43-50.
- [J-7] **E. A. Feilat**, S. Azzam, A. Al-Salaymeh, "Impact of Large PV and Wind Power Plants on Voltage and Frequency Stability of Jordan's National Grid," *Sustainable Cities and Society*, 35(1), 2018, pp. 257-271.
- [J-8] Ibrahim A. Metwally, Mohamed Eladawy, **E. A. Feilat**, "Online condition monitoring of surge arresters based on third-harmonic analysis of leakage current", *IEEE Transactions on Dielectrics and Electrical Insulation*, 24(4), 2017, pp. 2274 - 2281.
- [J-9] **E. A. Feilat**, Rafat R. Aljarrah, M. B. Rifai, "Detection and Classification of Voltage Variations using Combined Envelope-Neural network based Approach," *Jordan Journal of Electrical Engineering (JJEE)*, 3(2), 2017, pp. 112-124.
- [J-10] **E. A. Feilat**, D. A. Abu Qdoum M. B. Rifai, "Voltage Flicker Estimation and Mitigation using Combined MUSIC-DVR Technique," *Jordan Journal of Electrical Engineering (JJEE)*, 2(1), 2016, pp. 13-28.

- [J-11] **E. A. Feilat**, “Discrimination between Transformer Inrush Current and Internal Fault using Combined DFT-ANN Approach,” *Jordan Journal of Electrical Engineering (JJEE)*, 1(1), 2015, pp. 1-12.
- [J-12] **E. A. Feilat**, Ibrahim A. Metwally, Sulaiman Al-Matri and Ahmad S. Al-Abri “Analysis of the Root Causes of Transformer Bushing Failures,” *WASET, International Journal of Computer, Electrical, Automation, Control and Information Engineering*, 7(6), 2013, pp. 791-796.
- [J-13] A. Al-Hinai, A. Al-Badi, **E. A. Feilat**, and M. Albadi, “Efficiency Enhancements of Electric Power System and Economic Analysis- Practical Case Study,” *Int. J. of Thermal & Environmental Engineering*, 5(2), 2013, pp. 183-190.
- [J-14] **E. A. Feilat** and E.K. Ma’aita, “RBF neural network approach for identification and control of DC motors,” *The Journal of Engineering Research (TJER)*, 9(2), 2012, pp. 80-89.
- [J-15] M. Jaradat, M. Garibeh and **Eyad A. Feilat**, “Autonomous mobile robot dynamic motion planning using fuzzy potential field,” *Soft Computing*, 16(1), 2012, pp. 153-164.
- [J-16] **E. A. Feilat**, “Performance Comparison of adaptive estimation techniques for power system small-signal stability assessment,” *The Journal of Engineering Research (TJER)*, 7(2), 2010, pp. 10-23.
- [J-17] **E. A. Feilat**, “Fast Estimation of Synchronizing and Damping Torques Coefficients using Adaline,” *Journal of Electrical Engineering*, 9 (1), 2009, pp. 101-108.
- [J-18] **E. A. Feilat** and Amer Hammad, “Fuzzy Logic Based Estimation of Synchronizing and Damping Torques Coefficients,” *Abhath Al-Yarmouk: Basic Sci. & Eng.*, 18(1), 2009, pp. 585-593.
- [J-19] **E. A. Feilat**, “Neural network based assessment of small-signal stability,” *International Journal of Modeling and Simulation (IJMS)*, 27(2), 2007, pp. 151-157.
- [J-20] **E. A. Feilat**, “Prony analysis technique for estimation of the mean curve of lightning impulses,” *IEEE Transactions on Power Delivery*, 21(4), 2006, 2088-2090.
- [J-21] **E. A. Feilat**, “Detection of voltage envelope using Prony analysis-Hilbert transform method,” *IEEE Transactions on Power Delivery*, 21(4), 2006, 2091-2093.
- [J-22] **E. A. Feilat**, A. M. Jaroshi, and S. M., Radaideh, “A comparative design and performance of fuzzy logic based power system stabilizer,” *WSEAS Transactions on Power Systems*, 1(1), 2006, 289-295.
- [J-23] **E. A. Feilat** and K. N. Al-Tallaq, “An artificial neural network approach for three-zone distance protection,” *International Journal of Modeling and Simulation (IJMS)*, 25(4), 2005, 1-8.
- [J-24] **E. A. Feilat** and K. N. Al-Tallaq, “Combined Hilbert transform-neural network approach for discrimination between inrush and short-circuit currents,” *International Journal of Engineering Simulation (IJES)*, 6(2), 2005, 38-44.
- [J-25] **E. A. Feilat** and K. N. Al-Tallaq, “Identification and relaying of out-of-step operation using combined Prony analysis-apparent impedance method,” *WSEAS Transactions on Circuits and Systems*, 4(8), 2005, 944-951.
- [J-26] **E. A. Feilat**, “Prony-RBFNN adaptive power system stabilizer,” *WSEAS Transactions on Circuits and Systems*. 4(7), 2005, 765-772.
- [J-27] **E. A. Feilat**, S. Grzybowski, P. Knight, and L. Doriott, “Breakdown and aging behavior of composite insulation system under DC and AC high voltages,” *WSEAS Transactions on Circuits and Systems*, 4(7), 2005, 780-787.
- [J-28] S. Grzybowski, **E. A. Feilat**, and P. Knight, “Multistress life models of epoxy encapsulated magnet wire under high frequency pulsating voltage,” *Korean Institute of Electrical*

Engineers (KIEE) International Transaction on Electrophysics & Applications, 3(1), 2003, 1-4.

- [J-29] **E. A. Feilat**, N. Younan, and S. Grzybowski, "Estimating the synchronizing and damping torque coefficients using Kalman filtering," *Electric Power System Research*, 52(2), 1999, 145-149.
- [J-30] M. H. Shwehdi, F. Shahzad, M. Izzularab, and **E. A. Feilat**, "Multiple regression technique for estimating the insulation strength of series dielectrics on distribution systems: a statistical approach," *IEE Proceedings, Part-C: Generation, Transmission and Distribution*, 145(2), 1998, 189-195.
- [J-31] **E. A. Feilat**, E. M. Aggoune, M. Bettayeb, and H. Al-Duwaish, "On-line estimation of synchronizing and damping torque coefficients using neural network based approach," *Electric Machines and Power Systems*, 25, 1997, 993-1007.
- [J-32] **E. A. Feilat**, M. Bettayeb, H. Al-Duwaish, M. Abido, and A. Mantawy, "A neural network based approach for on-line dynamic stability assessment using synchronizing and damping torque coefficients," *Electric Power System Research*, 39(2), 1996, 103-110.
- [J-33] **E. A. Feilat**, A. Shaltout, "Evaluating the dynamic performance of multimachine power systems with VAR compensation using the synchronizing and damping torque. *Arabian Journal for Science and Engineering (AJSE)*, 20(4b), 1995, 753-762.
- [J-34] **E. A. Feilat**, I. El-Amin, and M. Bettayeb, "Power system harmonics estimation: a comparative study," *Electric Power System Research*, 29(1), 1994, 91-97.
- [J-35] A. Shaltout, and **E. A. Feilat**, "Damping and synchronizing torque of closely coupled generators," *Electric Power System Research*, 26(2), 1993, 195-202.
- [J-36] A. Shaltout, and **E. A. Feilat**, "Damping and synchronizing torque computation in multimachine power systems," *IEEE Transactions on Power Systems*, 7(1), 1992, 280-286.

Conference Papers

- [C-1] Amer A. Alrashdan, **Eyad A. Feilat**, Mohammed Haj-ahmed, "Protection of Transmission Lines Emanating from DFIG-Based Wind Farms During Symmetrical Faults," 2021 IEEE Industry Applications Annual Meeting (IAS), October 10-14, 2021 - Vancouver, BC, Canada.
- [C-2] Amani A AlOmari, Abdallah A. Smadi, Brian K. Johnson, **Eyad A. Feilat** "Combined Approach of LST-ANN for Discrimination between Transformer Inrush Current and Internal Fault," The 52nd North American Power Symposium (NAPS), April 11-14, 2021, Arizona State University, Tempe, Arizona.
- [C-3] Sara N. Altamimi, **Eyad A. Feilat**, Dia Abu Al Nadi, "Maximum Power Point Tracking Technique Using Combined Incremental Conductance and Owl Search Algorithm," The 12th International Renewable Engineering Conference-IREC2021," April 14-15, 2021, Amman, Jordan.
- [C-4] Fadi M. AlAlamat, **Eyad A. Feilat**, Mohammed Haj-ahmed, "Performance Assessment of Distance Protection of PV-Integrated Microgrids," 6th International Conference on Renewable Energy: Generation and Applications, ICREGA'21, February 2-4, 2021, United Arab Emirates University, Al Ain, UAE.
- [C-5] Fadi M. AlAlamat, **Eyad A. Feilat**, Mohammed Haj-ahmed, "New Distance Protection Scheme for PV Microgrids," 6th IEEE R8 International ENERGY Conference, ENERGYCON 2020, September 28 - October 1, 2020, Gammarth – Tunis, Tunisia.

- [C-6] Asem W. Bani Salameh, **Eyad A. Feilat**, Mohammed Haj-ahmed, “Harmony Search Based Algorithm for Optimal Estimation of Hybrid Active Power Filter Parameters,” 6th IEEE R8 International ENERGY Conference, ENERGYCON 2020, September 28 - October 1, 2020, Gammarth – Tunis, Tunisia.
- [C-7] **Eyad A. Feilat**, Dalia Abu-Eideh, Ibrahim A. Metwally, “Total Leakage Current Decomposition of Surge Arresters Using Discrete Fourier Transform,” The International Conference on Electrical and Computing Technologies and Applications, 2019 (ICECTA'2019), November 19 -21, 2019, RAK, UAE.
- [C-8] Alaa F. Farhan, **Eyad A. Feilat**, Ahmed S. Al-Salaymeh, “Maximum Power Point Tracking Technique Using Combined Perturb & Observe and Owl Search Algorithms,” The International Conference on Electrical and Computing Technologies and Applications, 2019 (ICECTA'2019), November 19 -21, 2019, RAK, UAE.
- [C-9] Mohammad I. Al Saaideh, **Eyad A. Feilat**, Dia I. Abu-Al-Nadi, Amer S. Al-Hinai, “Lightning Impulse Parameter Estimation Using Nonlinear Least Square Algorithm,” 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), April 9-11, 2019, Amman, Jordan.
- [C-10] Ahmad Hammoudeh, Mohammad I. Al Saaideh, **Eyad A. Feilat**, Hamza Mubarak, “Estimation of Synchronizing and Damping Torque Coefficients Using Deep Learning Algorithm,” 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), April 9-11, 2019, Amman, Jordan.
- [C-11] Mohamed Taha, Dia Abualnadi, Omar Hasan, **Eyad A. Feilat**, “Lightning Pulse Parameter Estimation using Fractional Model Order Reduction,” 7th IEEE International Conference on Control Systems, Computing and Engineering (ICCSCE2017), November 24-26, 2017, Penang, Malaysia.
- [C-12] Mohammed A. Haj-ahmed, **Eyad A. Feilat**, Hussam J. Khasawneh, Ahmed. F. Abedalhadi, Alaa Awwad, “Investigation of Fault Characteristics of Different Types of Wind Generators”, The 2017 IEEE-IAS Annual Meeting, October 1-5, 2017, Cincinnati, OH, USA.
- [C-13] Salma Azzam, **E. A. Feilat**, Ahmed Al-Salaymeh, “Impact of Connecting Renewable Energy Plants on the Capacity and Voltage Stability of the National Grid of Jordan,” The 8th International Renewable Energy Congress (IREC 2017), Amman, Jordan, March 21-23, 2017.
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- [C-26] **E. A. Feilat**, A. M. Jaroshi, S. M. Radaideh, “Adaptive neuro-fuzzy technique for tuning power system stabilizer”, Proceedings of the 41st International Universities Power Engineering Conference (UPEC 2006), Newcastle upon Tyne, UK, September 6-8, 2006.
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- [C-58] A. A. Shaltout, **E. A. Feilat**, “Damping and synchronizing torque computation in multimachine power systems,” Proceedings of the IEEE-PES 1991 Summer Meeting, San Diego, California, USA, June 1991.

PROJECTS CONDUCTED AT SULTAN QABOOS UNIVERSITY

- [RP-1] **E. Feilat**, I. Metwally,, and S. Al-Hinai, “Blackout Investigation due to Transformer-Bushing Failures at JBB Ali Grid Station,” February 2011. [RO 15,000]
- [RP-2] A. Al-Hinai, **E. Feilat**, Abdullah Al-Badi, and Mohammed Al-Badi, PDO power system electrical losses optimization study,” June 2011. [RO 28,000]
- [RP-3] A. Al-Hinai, **E. Feilat**, “Evaluation of Kauther Phase II Harmonic Model/Study,” April 2010. [RO 4,500]
- [RP-4] A. Al-Hinai, **E. Feilat**, and S. Al-Hinai, “EDSA-Based AC Arc Flash Analysis Study Of OXY 11-kV RMUs Network”, OCCIDENTAL OF OMAN (OXY), September 2010.
- [RP-5] **E. Feilat**, and A. Al-Hinai, “Technical Evaluation of Power System Analysis Software for PDO Applications,” PETROLEUM DEVELOPMENT OF OMAN (PDO), August 2010. [RO 9,612]
- [RP-6] **E. Feilat**, and A. Al-Hinai, “Verification of Symmetrical Short-Circuit Analysis of 10MVA 33/11 kV Transformer,” VOLTAMP Transformers Oman LLC, May 2010. [RO 2,800]
- [RP-7] Ali Al-Maqrashi and **E. A. Feilat**, “Measurement of Severity of Pollution on 132 kV Insulators,” Dhofar Power Company, February 2010.

RESEARCH PROJECTS CONDUCTED at MISSISSIPPI STATE UNIVERSITY

- [RP-8] S. Grzybowski, **E. A. Feilat**, “Multistress Lifetime characteristics of Encapsulated Fine Gauge Magnet Wire”, High Voltage Laboratory, Mississippi State University, MS, December 2000.
- [RP-9] S. Grzybowski, **E. A. Feilat**, “Accelerated Life Test Data for Air Insulated and Encapsulated Magnet Wires under High Frequency Pulsating Voltage and High Temperature”, High Voltage Laboratory, Mississippi State University, MS, November 2000.
- [RP-10] S. Grzybowski, **E. A. Feilat**, “Magnet Wire Accelerated Aging”, High Voltage Laboratory, Mississippi State University, MS December 1999.
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TECHNICAL REPORTS OF HV TESTING PROJECTS at MS STATE UNIVERSITY

- [TR-1] S. Grzybowski, **E. A. Feilat**, “Wet 60 Hz Withstand Voltage Tests on Double-Bushing Potential Transformers Models: POF-200, POF-250, & POF-350”, High Voltage Laboratory, Mississippi State University, MS, November 2000.
- [TR-2] S. Grzybowski, **E. A. Feilat**, “Lightning Impulse Withstand Voltage and 60 Hz Dry and Wet Withstand Voltage Tests on Three-Phase High Voltage Horizontal Vector Vacuum Switch”, High Voltage Laboratory, Mississippi State University, MS, August 2000.
- [TR-3] S. Grzybowski, **E. A. Feilat**, “Lightning Impulse Withstand Voltage and 60 Hz Dry and Wet Withstand Voltage Tests on Single High Voltage Vacuum Switch Unit”, High Voltage Laboratory, Mississippi State University, MS, August 2000.

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- [TR-5] **E. A. Feilat**, A. Lynn Libby, “Design Tests on a Type ATR Double Center Break Air Switch”, High Voltage Laboratory, Mississippi State University, Mississippi State, June 2000.
- [TR-6] S. Grzybowski, **E. A. Feilat**, “Wet 60 Hz Withstand Voltage Tests on Current Transformers Models: COF-250, COF-350 & COF-550”, High Voltage Laboratory, Mississippi State University, MS, June 2000.
- [TR-7] S. Grzybowski, **E. A. Feilat**, X. Li, “60 Hz Dry Flashover and Withstand Voltages and Dry CFO Voltage of 138-kV Fiber Optic Insulator”, High Voltage Laboratory, Mississippi State University, MS, June 2000.
- [TR-8] S. Grzybowski, **E. A. Feilat**, X. Li, “CFO Voltages of Distribution Lines Elements (Braces and Crossarms)”, High Voltage Laboratory, Mississippi State University, MS, May 2000.
- [TR-9] S. Grzybowski, **E. A. Feilat**, “RIV and 60 Hz Dry Flashover Voltage Test on Compositz Supported Line Post”, High Voltage Laboratory, Mississippi State University, MS, May 2000.

Professional Development And Workshop Attended

- [W-1] “Photovoltaic Systems and Energy Storage”, IEEE-JEA Innovative Technologies Workshop Series, Sep. 12-13, 2017, Amman, Jordan.
- [W-2] “Energy Storage Systems”, April 24, 2017, Jordan CIGRE, Amman, Jordan.
- [W-3] “The Future of Jordan Green Technology & the Regional Best Practices”, May 5, 2015, Jordan Engineers Association, Amman, Jordan.
- [W-4] “Staff Development Workshops”, Jan. 18-22, 2015, University of Jordan, Amman, Jordan.
- [W-5] “Electric Training Course”, Muscat GeoSystems, Oct. 08-10, 2012, Muscat, Oman.
- [W-6] “LabView”, Feb. 1-2, 2011, Sultan Qaboos University, Muscat, Oman.
- [W-7] “Power Quality”, Jan. 15-19, 2011, Sultan Qaboos University, Muscat, Oman.
- [W-8] “Know your Students Learning Styles”, Sultan Qaboos University, Dec, 15, 2010, Oman.
- [W-9] “Distribution System Protection”, July 31-Aug. 2, 2010, Sultan Qaboos University, Muscat, Oman.
- [W-10] “Becoming an Effective Supervisor”, Jan. 26-27, 2010, Sultan Qaboos University, Oman.
- [W-11] “Developing Leadership Capability in Teaching & Learning,” Sultan Qaboos University, Jan. 24-25, 2009.
- [W-12] “Internet Application in Engineering Education and Industrial Training, Jordan University of Science & Technology, Aug. 6-7, 2002.
- [W-13] “High Voltage Measurement Techniques”, Mississippi State University, April 19-23, 1999.
- [W-14] “High Voltage Measurement Techniques”, Mississippi State University, April 20-24, 1998.
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- [W-16] “Lightning Protection of Transmission Lines”, Mississippi State University, October 14-16, 1996.
- [W-17] “Motivating Students to Learn”, King Fahd University of Petroleum & Minerals, October 9-13, 1993.
- [W-18] “The Dynamics of Teaching Excellence”, King Fahd University of Petroleum & Minerals, May 9-13, 1992.
- [W-19] “Power System Protection”, King Fahd University of Petroleum & Minerals, April 18-22, 1992.
- [W-20] “Good Evaluation: A Critical Part of Good Teaching”, King Fahd University of Petroleum & Minerals, Nov. 23-27, 1991.

SHORT COURSES TAUGHT

- Amer Al-Hinai and **E. A. Feilat**, “Electrical Power System Modeling and Analysis”, Short-Course, Sultan Qaboos University, Oman, 21-23 March 2011.
- Amer Al-Hinai and **E. A. Feilat**, “Electrical Power System Modeling and Analysis”, Short-Course, Sultan Qaboos University, Oman, 27-29 June 2010.
- K. Tallaq and **E. A. Feilat**, “Digital power system protection”, Short Course, Amman, Jordan, 2003.

ORAL PRESENTATIONS

- [P-1] “Maximum Power Point Tracking Technique Using Combined Perturb & Observe and Owl Search Algorithms,” The International Conference on Electrical and Computing Technologies and Applications, 2019 (ICECTA'2019), November 19 -21, 2019, RAK, UAE
- [P-2] “Total Leakage Current Decomposition of Surge Arresters Using Discrete Fourier Transform,” The International Conference on Electrical and Computing Technologies and Applications, 2019 (ICECTA'2019), November 19 -21, 2019, RAK, UAE.
- [P-3] “Impact of Connecting Renewable Energy Plants on the Capacity and Voltage Stability of the National Grid of Jordan,” The 8th International Renewable Energy Congress (IREC 2017), Amman, Jordan, March 21-23, 2017.
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- [P-13] “Prony-RBFNN Approach for Tuning Power System Stabilizer”, 5th WSEAS International Conference on Power Systems and Electromagnetic Compatibility (PSE'05), Corfu, Greece, August 23-25, 2005.
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- [P-19] "Performance Estimation Techniques for Power System Dynamic Stability Using Least Squares, Kalman Filtering and Genetic Algorithm", IEEE SoutheastCon2000, Nashville, TN, April 7-9, 2000.
- [P-20] "Electrical Aging Models for Fine Gauge Magnet Wire Enamel of Flyback Transformer", IEEE SoutheastCon2000, Nashville, TN, April 7-9, 2000.
- [P-21] "Added Critical Flashover Voltage by Fiberglass Distribution Line Pole", 2000 IEEE International Symposium on Electrical Insulation, Anaheim, CA, April 2-5, 2000.
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- [P-26] "Evaluating the Dynamic Performance of Multimachine Power System with VAR Compensation Using Synchronizing and Damping Torque", 2nd Saudi Symposium on Energy, Utilization & Conservation, Dhahran, Saudi Arabia, November 27-30, 1994.

INVITED LECTURES/SEMINARS

- [S-1] "Power Quality Enhancement using Custom Power Devices", The University of Jordan, April 28, 2014.
- [S-2] "Applications of Prony Analysis & Hilbert Transform in Power System Engineering," Sultan Qaboos University, April 29, 2008.
- [S-3] "Added CFO Voltage by Fiberglass Poles and Cross-arms," Irbid Electric Power Company, March 6, 2004. "Power System Quality Part-I: Terms and Definitions," Irbid Electric Power Company, Irbid, Jordan, September 9, 2002.
- [S-4] "Power System Quality Part-II: Harmonics," Irbid Electric Power Company, Irbid, Jordan, September 9, 2002.
- [S-5] "Power System Harmonics: Phenomena, Sources, Impact, Modeling, And Control," National Electric Power Company (NEPCO), Amman, Jordan, April 27, 2002.
- [S-6] "Radial Basis Function Neural Networks: An Overview," King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, March 14, 1996.
- [S-7] Application of Pattern Recognition to Power System Security Assessment," King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, March 7, 1996.
- [S-8] "Power System Dynamic Security Assessment: Neural Network Based Approach," King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, January 17, 1996.

[S-9] "Power System Static Security Assessment: Neural Network Based Approach," King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, January 11, 1996.

PERSONAL INTEREST

Family, cultural events, traveling, swimming, and community services.