

CURRICULUM VITAE

Usama Khaled, *Professor*

PERSONAL DATA:

Full Name: *Usama Khaled*

Professional Title: *Professor*

Specialization: *Electrical Power Engineering*

Current Position: *Head of EE Department*

Current Address: *Department of Electrical Engineering,
Faculty of Energy Engineering, Aswan University,
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EDUCATION & EMPLOYMENT HISTORY

- **General Major of B.Sc., M.Sc. and Ph.D. Study:** **Electrical Power Engineering**
- **Specific Field of M.Sc. & Ph.D. Study:** **Nanotechnology and High Voltage Engineering**
- **From October, 1993 up to May, 1998:** Undergraduate studies in Electrical Power Engineering in Faculty of Energy Engineering, Aswan, Egypt.
- **From October, 1999 up to July, 2003:** Graduate Studies (M.Sc.) in Electrical Power Engineering in Faculty of Energy Engineering, Aswan, Egypt. The following courses were studied in the qualification year as a preparation for the master research: *Power Systems Analysis, Power Electronics, Power Systems Control, High Voltage Engineering, Computer Based Numerical Analysis and Technical Language.*
- **From October, 1999 up to July, 2003:** Teaching Assistant at Electrical Power Engineering Department, Faculty of Energy Engineering, Aswan University, Aswan, Egypt.
- **From July, 2003 up to September 2004:** Assistant Lecturer at Electrical Power Engineering Department, Faculty of Energy Engineering, Aswan University, Aswan, Egypt.
- **From October, 2004 up to October, 2009:** Research Assistant at Faculty of Engineering- **Cairo University**, Giza, Egypt.
- **From June, 2007 up to June, 2009:**
 1. Internal mission granted from Egyptian Government (Cultural Affairs & Missions Sector) for studying PhD.
 2. PhD visiting researcher for two years at department of electrical and electronic systems engineering- Graduate school of information science and electrical engineering- **Kyushu University, Japan.**
- **From October, 2010 up to February, 2011:** Post-doc Fellow researcher at Department of Electrical Power Engineering, Faculty of Electrical Engineering, **Czech Technical University**, Prague, Czech Republic.
- **From 2010 up to 2017:** Assistant professor at Electrical Power Engineering Department, Faculty of Energy Engineering, Aswan University, Aswan, Egypt.
- **From 2017 up to 2022:** Associate professor at Electrical Power Engineering Department, Faculty of Energy Engineering, **Aswan University**, Aswan, Egypt.
- **From September, 2013 up to 2017:** Assistant professor at Electrical Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.
- **From June 2018 up to July 2020:** Associate professor at Electrical Engineering Department, College of Engineering, **King Saud University**, Riyadh, Saudi Arabia.

- **From Sept. 2022 up to Now:** Professor at Electrical Power Engineering Department, Faculty of Energy Engineering, **Aswan University**, Aswan, Egypt.

FIELD OF SPECIALIZATION & INTERESTS

- Nanocomposite materials and dielectric nanofluids.
- Preparation and surface functionalization of nano-materials.
- Water treatment using pulsed power technology.
- Experiments and simulation of high voltage technologies.
- Ozone generation using dielectric barrier discharge DBD.
- Discharge phenomena including atmospheric corona discharge.
- Microplasma streamer discharge underwater.
- Electrostatic applications.

Diploma, SKILLS, Training, ACTIVITIES, and Qualifications

- PhD visiting researcher for two years at department of electrical and electronic systems engineering- Graduate school of information science and electrical engineering- Kyushu University, Japan, June, 2007 up to June, 2009
- Post-doc Fellow researcher at Department of Electrical Power Engineering, Faculty of Electrical Engineering, Czech Technical University, Prague, Czech Republic, , October, 2010 up to February, 2011.
- English: Excellent (speaking-writing-listening) - International & Local TOEFL certificates.
- ICDL (International Computer Driving License) certificate.
- Fundamentals of programming by MATLAB software certificate.
- Training course certificate of using DREAMWEAVER software.
- Certificate of Information and Communication Technology Project (ICTP) from central unit of ICT-Training at South Valley University.
- Certified trainer from SIEMENS Co. for training on Programmable Logic Controllers (PLC basic, HMI, SCADA systems, Drives).
- Certificate of Participation on Industry Academia Annual Competition "INDAC 2010" organized by cooperation between SIEMENS S.A.E. together with the Industrial Training Council "ITC".
- Certificate of Participation on Industry Academia Annual Competition "INDAC 2011" organized by cooperation between SIEMENS S.A.E. together with the Industrial Training Council "ITC".
- Attendance a training course "Ethics of Scientific Research" at Faculty and Leadership Development Center, Aswan University, Egypt, from 18/2/2013 to 20/2/2013.
- Attendance a training course "E-Learning and Effective Teaching" at Faculty and Leadership Development Center, South Valley University, Egypt, from 18/5/2013 to 20/5/2013.
- Attendance a training course "Technology Using in Teaching" at Faculty and Leadership Development Center, South Valley University, Egypt, from 15/6/2013 to 17/6/2013.
- Attendance a training course "Credit Hours System" at Faculty and Leadership Development Center, Aswan University, Egypt, from 2/7/2013 to 4/7/2013.
- Certificate of Appreciation for Participation as a referee in "2nd Conference of Young Researchers", Aswan University, 2013.

- Participation as a referee in “5th Scientific Conference for Students of King Saud University”, King Saud University, Riyadh, Saudi Arabia, 22- Feb. 2014.
- Certificate of Participation on “Electrical Industry Seminar”, SABIC Company, Riyadh, Saudi Arabia, 20th May, 2014.
- Certificate of Participation on “Using of Smart Classes”, King Saud University, Riyadh, Saudi Arabia, 16- Feb. 2014.
- Certificate of Participation on “3rd Saudi International Nanotechnology Conference 2014, 3SINC”, King Abdulaziz City for Science and Technology KACST, Riyadh, Kingdom of Saudi Arabia, 1-3 Dec. 2014.
- Certificate of Participation on “6th International Conference on Water Resources and Arid Environments ICWRAE”, King Saud University, Riyadh, Kingdom of Saudi Arabia, 16-17 Dec. 2014.
- Participation as a referee in “6th Scientific Conference for Students of King Saud University”, King Saud University, Riyadh, Saudi Arabia, 29-30 Dec. 2014.
- Certificate of Participation on “4th Series of Short Lectures in Sustainable Energy”, Sustainable Energy Technologies center “SET”, King Saud University, Riyadh, Saudi Arabia, 20th Oct. – 15th Dec. 2015.
- Certificate of appreciation and gratitude Awarded from BAE systems Co. and College of Engineering, King Saud University for supervising best final year graduation project in the Department of Electrical Engineering, Jan.2015.
- Certificate of Attendance on “38th Scientific Symposium of Water Treatment using Nanotechnology”, King Abdulaziz City for Science and Technology KACST, Riyadh, Kingdom of Saudi Arabia, 17th April 2016.
- Certificate of Attendance on “8th International Conference on Water Resources and Arid Environments ICWRAE'8”, King Saud University, Riyadh, Kingdom of Saudi Arabia, 22-24 January 2019.
- Attending a workshop of 2nd Scientific Research Forum “Understanding research integrity, ethics, and plagiarism”, College of Medicine, King Saud University, Riyadh, KSA, 17 Feb. 2019.
- Attending a workshop of 2nd Scientific Research Forum “Writing and structuring a manuscript to impress SCI journal editors”, College of Medicine, King Saud University, Riyadh, KSA, 17 Feb. 2019.
- Attending a workshop of 2nd Scientific Research Forum “Responding to peer reviewer comments” College of Medicine, King Saud University, Riyadh, KSA, 19 Feb. 2019.
- Attending a workshop of 2nd Scientific Research Forum “Practical uses of databases in scientific research” College of Medicine, King Saud University, Riyadh, KSA, 21 Feb. 2019.
- Attending a workshop of 2nd Scientific Research Forum “Promoting your research for better visibility-Selecting the right journal for your manuscript” College of Medicine, King Saud University, Riyadh, KSA, 21 Feb. 2019.
- Attendance a training course “Ethics of Scientific Research” at Faculty and Leadership Development Center, Aswan University, Egypt, from 18/7/2019 to 20/7/2019.

- Certificate from Information Technology and Training Center ICTC on (PPT- Word Processing- Using Computers and Managing Files) at Aswan University, Egypt, on 14/7/2019.
- Participation in the second training camp for entrepreneurship at Aswan University, July 15-18, 2021
- Certificate of passing an online training course in "Skill Search for Information" from Deanship of e-Transactions & Communications, King Saud University, 10/2019.
- Certificate of passing an online training course in "Design tests and activities" from Deanship of e-Transactions & Communications, King Saud University, 03/2020.
- Certificate of Future Consultant Training Course Entitled; "General requirements for the competence of testing and calibration laboratories ISO/IEC 17025:2017", Aswan University, Egypt, 2 - 6/1/2021.
- Certificate of Completion workshop "Communicating Science to the Public", Nature Research Academies, 5 January 2022.
- Attendance a training course "Ethics of Scientific Research" at Faculty and Leadership Development Center, Luxor University, Egypt, from 22/03/2022 to 24/03/2022.

MEMBERSHIPS & Scientific Committees

- Member in Institute of Electrical Engineers in Japan (IEEJ).
- Member of Egyptian Syndicate of Engineers (36/08009).
- Member of Arab Materials Science and Nanotechnology Network (AMSN).
- Member in Saudi Arabian Standards, Metrology, and Quality Organization (SASO).
- Reviewer in many scientific Journals such as: Electrical Engineering & Technology "JEET", Journal of King Saud University - Engineering Sciences "JKSUES", IET SMT, IEEE Access, Energies, Alex. Eng. J. (AEJ), and IEEE-TDEI.
- **Member of several committees at the EE Dept. Faculty of Energy Engineering, Aswan University:**
 - Head of Electrical Engineering Department
 - Member of the board of directors and laboratories training and consulting unit
 - Manager of the security and safety unit
 - Technical manager of high voltage oil testing lab
 - Academic advisor and head of control for students of preparatory year 2021, 1st year 2022.
 - Editorial board and technical office member of the International Journal of Applied Energy Systems (IJAES)
 - Member of the faculty's council on behalf of the associate professors 12/12/2021.
 - Member of the faculty's accreditation committee.
 - Head of quality and development standard at the quality assurance and accreditation unit
 - Head of purchasing equipment committee for high voltage and insulators laboratories.
 - Member of the Entrepreneurship Club at Aswan University 2020-2021
- **Coordinator and member of several committees at the EE Dept. and College of Engineering, King Saud University:**
 - Coordinator of electrical power group members
 - Manager of HV oil insulators lab
 - Member of selection committee of graduate students
 - Member of department's council

TEACHING DUTIES

Graduate Level: Technical reports in English, Power Utilization and Conversion, Power Utilization and Distribution, Switchgear and Protection, Generation and Storage of Electricity, Electric Operation Power Systems, Electrical Installations, and Electrical Traction systems.

Undergraduate Level: High Voltage Engineering, High Voltage Applications, Engineering Mathematics, Technical reports in English, Theory of Automatic Control, Electric Power Utilization, Electrical Power Systems, Power System Analysis, Alternators and Transformers, Switchgear and Protection, Electrical Testing Laboratory, Electrical Power Transmission & Distribution, Solar Energy and Photovoltaics.

SUPERVISION OF B.Sc. and M.Sc. PROJECTS

- B.Sc. Graduation Project, "Quality assurance automation through weighing", financially and technically supported from Siemens Co., Faculty of Energy Engineering, Aswan, 2010.
- B.Sc. Graduation Project, "Non-contact temperature measurement during the coiling of metal band in steel industry", financially and technically supported from Siemens Co., Faculty of Energy Engineering, Aswan, 2011.
- B.Sc. Graduation Project, "Mixing tanks with level control", financially and technically supported from Siemens Co., Faculty of Energy Engineering, Aswan, 2011.
- B.Sc. Graduation Project, "Immersing machine unit", financially and technically supported from Siemens Co., Faculty of Energy Engineering, Aswan, 2012.
- B.Sc. Graduation Project, "Automated battery used in filling station", financially and technically supported from Siemens Co., Faculty of Energy Engineering, Aswan, 2012.
- B.Sc. Graduation Project, "Automatic sorting of products through weigh", financially and technically supported from Siemens Co., Faculty of Energy Engineering, Aswan, 2012.
- B.Sc. Graduation Project, "Industrial wastewater treatment using PLC", financially and technically supported from Siemens Co., Faculty of Energy Engineering, Aswan, 2012.
- B.Sc. Graduation Project, "Automatic sun-tracker system for photovoltaic plant", Faculty of Energy Engineering, Aswan, 2013.
- B.Sc. Graduation Project, "ATP modeling and protection of HV network elements under transient conditions", Faculty of Energy Engineering, Aswan, 2013.
- B.Sc. Graduation Project, "Non-contact measuring of magnetic field of high voltage transmission lines in Riyadh area", College of Engineering, King Saud University, Riyadh, 2014.
- B.Sc. Graduation Project, "Voltage-Current Characteristics of Wire-Plate Electrostatic Precipitator", College of Engineering, King Saud University, Riyadh, 2015. "Awarded from BAE systems Co. to the best graduation project in EE Dep. in Jan. 2015".
- B.Sc. Graduation Project, "Effect of Lightning Flashover in 132 kV Transmission Lines", College of Engineering, King Saud University, Riyadh, June 2015.
- B.Sc. Graduation Project, "Performance of Electrostatic Precipitator Under Loading Conditions", College of Engineering, King Saud University, Riyadh, Dec. 2015.
- B.Sc. Graduation Project, "Electrical Investigation of Nano Polymers for High Voltage Applications", College of Engineering, King Saud University, Riyadh, May 2016.
- B.Sc. Graduation Project, "Parameters Affecting Operation of Two Stages ESP", College of Engineering, King Saud University, Riyadh, May 2016.
- B.Sc. Graduation Project, "Lightning Protection with Transmission Line Arrester of 220 kV Double Circuit Line", B.Sc. Graduation Project, College of Engineering, King Saud University, Riyadh, Dec. 2016.
- B.Sc. Graduation Project, "Dispersion Behavior and Breakdown Strength of Nanofluid Insulation", College of Engineering, King Saud University, Riyadh, May 2017.

- B.Sc. Graduation Project, “Enhancement of Transformer Oil Dielectric Performance Based on Nano-Fluids”, College of Engineering, King Saud University, Riyadh, May 2018.
- B.Sc. Graduation Project, “Influences of Electronic Scavenger Additives on Breakdown Voltages of Transformer Oil”, College of Engineering, King Saud University, Riyadh, May 2018.
- B.Sc. Graduation Project, “Enhancement of Transformer Oil Dielectric Performance Based on Nanofluids”, College of Engineering, King Saud University, Riyadh, May 2018.
- B.Sc. Graduation Project, “Parametric study of Nanofluids Based on Transformer Oil”, College of Engineering, King Saud University, Riyadh, December 2018.
- “Breakdown Phenomenon in Nanofluids under Different Voltage Waveforms”, B.Sc. Graduation Project, College of Engineering, King Saud University, Riyadh, May 2019.
- “Optical and Electrical Characterization of Creeping Discharges Propagating at Solid/Nano-Fluid Interfaces”, B.Sc. Graduation Project, College of Engineering, King Saud University, Riyadh, May 2020.
- “Investigation of pre-breakdown phenomenon in nanofluids under different voltage waveforms”, B.Sc. Graduation Project, College of Engineering, King Saud University, Riyadh, May 2020.
- Diploma Graduation Project, “Improvement of HV networks performance using automatic reclosing system of circuit breakers”, Faculty of Energy Engineering, Aswan, 2013.
- Diploma Graduation Project, “Improvement of distribution networks performance by adding capacitor banks on transmission lines”, Faculty of Energy Engineering, Aswan, 2013.
- M.Sc. Graduation Project, “Factors Affecting Transient Response of Grounding Grid Systems”, College of Engineering, King Saud University, Riyadh, December 2018.
- M.Sc. Graduation Project, “Analytical Study on Grounding of Overhead Transmission Towers against Lightning Phenomenon”, College of Engineering, King Saud University, Riyadh, May 2018.
- M.Sc. Graduation Project, “Analysis of Lightning Overvoltages on Power Transmission Networks”, College of Engineering, King Saud University, Riyadh, December 2018.
- M.Sc. Graduation Project, “Dielectric Parametric Study of Nanofluids Transformer Insulating Oil”, College of Engineering, King Saud University, Riyadh, May 2018.
- M.Sc. Graduation Project, “Enhancement of breakdown voltage using mixture of nanoparticles based on transformer mineral oil”, College of Engineering, King Saud University, Riyadh, May 2020.
- MSc Thesis, Falah Al-Otaiby, “Innovative Design of Two Stage Electrostatic Precipitator”, ID#432105939, EE Department, College of Engineering, King Saud University, Riyadh, Kingdom of Saudi Arabia, June 2017.
- MSc Thesis, Saeed Al-Zahrani, “Effect of Partial Discharge on Nanocomposite Insulators”, ID # 434107775, EE Department, College of Engineering, King Saud University, Riyadh, Kingdom of Saudi Arabia, December 2018.
- MSc Thesis, Mohamed Alanazi, “Investigation of pre-breakdown phenomenon in nanofluids under different voltage waveforms”, ID # 437105887, EE Department, College of Engineering, King Saud University, Riyadh, Kingdom of Saudi Arabia, May 2020.
- MSc Thesis, Aassem Alghamdi, “Optical and Electrical Characterization of Creeping Discharges Propagating at Solid/Nano- Fluid Interfaces”, ID # 437105893, EE Department, College of Engineering, King Saud University, Riyadh, Kingdom of Saudi Arabia, May 2020.
- MSc Thesis, Mahmoud M. Hassan Hasseeb, “Power quality improvement using shunt active power filter for non-linear loads”, EE Department, Faculty of Energy Engineering, Aswan University, Aswan, Egypt, May 2018.

Research Fellowship

- **From October, 2010 up to February, 2011:** Post-doc Fellow researcher at Department of Electrical Power Engineering, Faculty of Electrical Engineering, Czech Technical University, Prague, Czech Republic.

Awarded and Contributed Research Grants

- **PhD visiting researcher** for two years at department of electrical and electronic systems engineering- Graduate school of information science and electrical engineering- Kyushu University, Japan.
- **Internal mission** granted from Egyptian Government (Cultural Affairs & Missions Sector) for studying PhD, 2007-2009 at College of Engineering - Cairo University.
- **Post-doc Fellowship** at Department of Electrical Power Engineering, Faculty of Electrical Engineering, Czech Technical University, Prague, Czech Republic, October, 2010 - February, 2011.
- University Award of the Scientific Research, Aswan University, 2014.
- University Award of the Scientific Research, Aswan University, 2017.
- University Award of the Scientific Research, Aswan University, 2018.
- University Award of the Scientific Research, Aswan University, 2019.
- University Award of the Scientific Research, Aswan University, 2020.
- University Award of the Scientific Research, Aswan University, 2021.
- **PI of Undergraduate Research Support Program**, no. URSP-3-17-42, "Efficient solution of the DC-link hard switching inverter of the PV system", 50,000 SAR, Deanship of Scientific Research, King Saud University, Saudi Arabia, 2018.
- **PI of Research Project**, no.216-35 م-ص "Improvement of Dielectric Properties of Nanocomposite Insulators used in Power Cables", 135,000 SAR, King Abdul-Aziz City for Science and Technology (KACST), Saudi Arabia, 13/11/2015 – 01/11/2016.
- **PI of Undergraduate Research Support Program**, no. URSP-3-17-42, "Influence of soil conductivity on lightning breakdown voltage of rod – plane air gaps", Funding of 50,000 SAR, Deanship of Scientific Research, King Saud University, Saudi Arabia, 2019.
- **PI of Initiative of DSR Graduate Students Research Support**, Funding of 20,000 SAR, Deanship of Scientific Research (DSR), King Saud University, Riyadh, Saudi Arabia, 2019.
- **PI of International Scientific Partnership Program (ISPP)**, Partnership Agreement no. (ISPP-0047), Funding of 75,000 SAR, Vice-Rectorate for Graduate Studies and Research, King Saud University, Saudi Arabia, 2016.
- **PI of International Scientific Partnership Program (ISPP)**, Partnership Agreement no. (ISPP-0047)", Funding of 200,000 SAR, Vice-Rectorate for Graduate Studies and Research, King Saud University, Saudi Arabia, 2018.
- **PI of "Research Groups Program (RGP)**, no. RG-1439-70", Funding of 150,000 SAR, Vice-Rectorate for Graduate Studies and Scientific Research, Deanship of Scientific Research, King Saud University, Saudi Arabia, 2018.
- **CO. I. of "Research Groups Program (RGP)**, no. RG-133", Funding of 150,000 SAR, Vice-Rectorate for Graduate Studies and Scientific Research, Deanship of Scientific Research, King Saud University, Saudi Arabia, 2018.

LIST OF PUBLICATIONS

1. Abderrahmane Beroual, **Usama Khaled**, "Effect of Nanoparticles' Mixtures on AC Breakdown Voltage of Mineral Oil", IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 28, No. 4, pp. 1216 - 1222, August 2021.
2. Abderrahmane Beroual, Hocine Khelifa, **Usama Khaled**, "Comparison of Electrostatic Charging Tendency of Jarylec and Mineral oil", Electrical Engineering, Vol. 104, pp. 1389 - 1394, June 2022.

3. **Usama Khaled**, Abderrahmane Beroual, "DC Breakdown Voltage of Natural Ester Oil-Based Fe_3O_4 , Al_2O_3 , and SiO_2 Nanofluids", Alexandria Engineering Journal (AEJ), vol. 59, No. 6, pp. 4611-4620, Dec. 2020.
4. **Usama Khaled**, Abderrahmane Beroual, "Lightning Impulse Breakdown Voltage of Synthetic and Natural Ester Liquids-Based Fe_3O_4 , Al_2O_3 and SiO_2 Nanofluids", Alexandria Engineering Journal (AEJ), vol. 59, pp. 3709–3713, June 2020.
5. Abderrahmane Beroual, **Usama Khaled**, Aassem AlGhamdi, "DC Breakdown Voltage of Synthetic Ester Liquid-based Nanofluids", IEEE Access, vol. 8, pp. 125797-125805, July 2020.
6. Abderrahmane Beroual, **Usama Khaled**, "Statistical Investigation of Lightning Impulse Breakdown Voltage of Natural and Synthetic Ester Oils-Based Fe_3O_4 , Al_2O_3 and SiO_2 Nanofluids", IEEE Access, vol. 8, pp. 112615-112623, June 2020.
7. Yasin Khan, "Influence of Electronic Scavenger Additives on AC Breakdown Voltage of Synthetic Ester", IET Science Measurement & Technology, Volume 14, Issue 6, pp. 684 – 687, August 2020.
8. **Usama Khaled**, Abderrahmane Beroual, "AC Breakdown Voltage of Mineral Oil, Synthetic and Natural Esters – Based Fe_3O_4 Nanofluids", 40th IEEE Electrical Insulation Conference (EIC), Knoxville, Tennessee, USA, June 19-22, 2022.
9. A. Alghamdi, **U. Khaled** and A. Beroual, "Optical and electrical characterization of creeping discharges propagating at solid/nano- fluid interfaces", World Research Forum for Engineering and Researchers (WRFER), Medina, Saudi Arabia, pp. 1-5, 14th May 2020.
10. M. AlAnazi and **U. Khaled**, "Investigation of Pre-breakdown Phenomenon in Nanofluids under Different Voltage Waveforms", World Research Forum for Engineering and Researchers (WRFER), Medina, Saudi Arabia, pp. 6-9, 14th May 2020.
11. Yeping Peng, **Usama Khaled**, Abdullah A. Alrashed, Rashid Meer, Marjan Goodarz, M. Sarafraz, "Potential application of Response Surface Methodology (RSM) for the prediction and optimization of thermal conductivity of aqueous CuO (II) nanofluid: A statistical approach and experimental validation", Physica A: Statistical Mechanics and its Applications, Vol. 554, Article No. 124353, Sep. 2020.
12. **Usama Khaled**, Abderrahmane Beroual, Yasin Khan, "Statistical Investigation of AC Breakdown Voltage of Natural Ester with Electronic Scavenger Additives", IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 26, No. 6; pp. 2012 - 2018, Dec. 2019.
13. **Usama Khaled**, Abderrahmane Beroual, "Statistical Investigation of AC Dielectric Strength of Natural Ester Oil-Based Fe_3O_4 , Al_2O_3 and SiO_2 Nano-Fluids", IEEE Access, Vol. 7, No. 1; pp. 60594-60601, May 2019.
14. **Usama Khaled**, Abderrahmane Beroual, "AC Dielectric Strength of Synthetic Ester -Based Fe_3O_4 , Al_2O_3 and SiO_2 Nanofluids – Conformity with Normal and Weibull Distributions", IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 26, No. 2; pp. 625-633, April 2019.
15. **Usama Khaled**, Abderrahmane Beroual, Salman Alissa, Omar Aldraimli and Abdulrahman Abanmi, "Influence of Soil Conductivity and Rod-to-Earth Gaps on Lightning Breakdown Voltage and Peak Current of Rod-to-Plane Air Gaps", Journal of Engineering and Applied Sciences, Volume 14, Issue 22, pp. 8362-8367, 2019.

16. **Usama Khaled**, Abderrahmane Beroual, "Influence of Conductive Nanoparticles on the Breakdown Voltage of Mineral Oil, Synthetic and Natural Ester Oil-based Nanofluids", 20th IEEE International Conference on Dielectric Liquids (ICDL), Roma, Italy, 23-27th June 2019.
17. Suresh Sagadevan, A. R. Marlinda, Mohd. Rafie Johan, Ahmad Umar, H. Fouad, Othman Y. Alothman, **Usama Khaled**, M. S. Akhtar, M. M. Shahid, "Reduced graphene/nanostructured cobalt oxide nanocomposite for enhanced electrochemical performance of supercapacitor applications", Journal of Colloid and Interface Science, Vol. 558, pp. 68-77, 15 December 2019.
18. Z.X. Li, **Usama Khaled**, Abdullah Al-Rashed, Marjan Goodarzi, M.M. Sarafraz, Rashed Meer, "Heat transfer evaluation of a micro heat exchanger cooling with spherical carbon-acetone nanofluid", International Journal of Heat and Mass Transfer, Vol. 149, Nov. 2019.
19. Zahid Hussain, Maria Imtiaz, Khalid M. Khan, Muhammad Yasin Naz, **Usama Khaled**, Yasin Khan, "White cement and burnt brick powder catalyzed pyrolysis of waste polystyrene for production of liquid and gaseous fuels", Asia-Pac. J. Chem. Eng., Wiley, Vol. 15, Issue 1, e2391, 2020.
20. Mohammad mohsen Sarafraz, Mohammad Reza Safaei, Arturo S. Leon, **Usama Khaled**, Marjan Goodarzi, and Rashed Meer, "Energetic Analysis of Different Configurations of Power Plants Connected to Liquid Chemical Looping Gasification", Processes, Vol. 7, Issue 10, pp. 763, 2019.
21. **Usama Khaled**, Abderrahmane Beroual, "AC Dielectric Strength of Mineral Oil-Based Fe_3O_4 and Al_2O_3 Nanofluids", Energies- Electrical Power and Energy System, Vol. 11, no. 12, pp. 3505, December 2018.
22. **Usama Khaled**, Abderrahmane Beroual, "The Effect of Electronic Scavenger Additives on the AC Dielectric Strength of Transformer Mineral Oil", Energies- Electrical Power and Energy System, Vol. 11, no. 10, pp. 2607, September 2018.
23. **Usama Khaled**, Abderrahmane Beroual, Falah Elotaibi, Yasin Khan, A. Al-Arainy, "Experimental and Analytical Study for Performance of Novel Design of Efficient Two-Stage Electrostatic Precipitator", IET Science Measurement & Technology, Volume 12, Issue 4, pp. 486 – 491, July 2018.
24. **Usama Khaled**, Rashid Meer, Abderrahmane Beroual, "A Novel Design of Three-Phase Transverse Flux Linear Motor to Minimize Force Ripples", Arabian Journal for Science and Engineering (AJSE), Springer, Volume 43, Issue 6, pp. 2853–2858, June 2018.
25. **Usama Khaled**, Hassan Farh, Salman Alissa, Abdulrhman Abanmi, Omar Aldraimli, "Efficient solution of the DC-link hard switching inverter of the PV system", Journal of King Saud University - Engineering Sciences (JKSUES), Volume 32, pp. 425–431, Oct. 2020.
26. Abderrahmane Beroual, **Usama Khaled**, "Influence of Hydrostatic Pressure on Creeping Discharge Characteristics over Solid/Liquid Insulating Interfaces under AC and DC voltages", IET Generation, Transmission & Distribution, Volume 12, Issue 2, pp. 267 – 271, 30 January 2018.
27. Mohamed F. El-Amin, **Usama Khaled**, and Abderrahmane Beroual, "Numerical Study of the Magnetic Field Effect on Ferromagnetic Fluid Flow and Heat Transfer in a Square Porous Cavity", Energies- Electrical Power and Energy System, Vol. 11, no. 11, pp. 3235, November 2018.

28. **Usama Khaled** and Abderrahmane Beroual, "Comparative Study on the AC Breakdown Voltage of Transformer Mineral Oil with Transformer Oil-based Al₂O₃ Nanofluids", IEEE International Conference on High Voltage Engineering and Application (ICHVE), Athens, Greece, Sept. 10-13, 2018.
29. A. Beroual and **U. Khaled**, "Evidencing of the capacitive effects on the development of creeping discharges at solid/fluid interfaces", IEEE Conference on Electrical Insulation and Dielectric Phenomena (CEIDP), Cancun, Mexico, pp. 305-308, Oct. 21-24, 2018.
30. Mohamed Abdel-Rahman, Osama M. Haraz, Nadeem Ashraf, Muhammad Fakhar Zia, **Usama Khaled**, Ibrahim Elsahfey, Saleh Alshebeili, and Abdel Razik Sebak, "Properties of Silica-Based Aerogel Substrates and Application to C-band Circular Patch Antenna", Journal of Electronic Materials, Volume 47, Issue 3, pp. 2025–2031, March 2018.
31. Ashique Kotta, Sajid Ali Ansari, Nazish Parveen, H. Fouad, Othman Y. Allothman, **Usama Khaled**, H. K. Seo, S. G. Ansari, Z. A. Ansari, "Mechanochemical synthesis of melamine doped TiO₂ nanoparticles for dye sensitized solar cells application", Journal of Materials Science: Materials in Electronics, Volume 29 Issue: 11, pp. 9108-9116, June 2018.
32. Basheer A. Alshammari, Othman Y. Allothman, H. Fouad, Yasser A. Elnakady, Abd-Elkader O. Mohamed, Shaban Rushdy M. Sayed, Mohamed Hashem, and **Usama Khaled**, "Characterization of the Viscoelastic, Dielectric, and Biological Behavior of Porous Polyethylene for Hard Tissue Replacement", Science of Advanced Materials, American Scientific publisher (ASP), Volume 9, Number 12, pp. 2073–2081, December 2017.
33. Abderrahmane Beroual, **Usama Khaled**, Mamadou-Lamine Coulibaly, "Experimental Investigation of the Breakdown Voltage of CO₂, N₂, and SF₆ Gases, and CO₂-SF₆ and N₂-SF₆ Mixtures under Different Voltage Waveforms", Energies- Electrical Power and Energy System, Vol. 11, no. 4, pp. 902, April 2018.
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