

السيرة الذاتية للدكتور عبدالرحمن العريني

الأسم : أ.د. عبدالرحمن بن علي سليمان العريني .

العنوان: قسم الهندسة الكهربائية - كلية الهندسة - جامعة الملك سعود .
المرتبة العلمية الحالية : أستاذ

العنوان : جامعة الملك سعود - كلية الهندسة - قسم الهندسة الكهربائية

ص.ب : 800 . الرياض 11421 المملكة العربية السعودية

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بريد إلكتروني : AARAINY@ KSU.EDU.SA

المؤهلات الدراسية :

- 1) بكالوريوس هندسة كهربائية . جامعة الرياض (جامعة الملك سعود حالياً) عام 1394 هـ .
- 2) ماجستير في الهندسة الكهربائية (قوى) جامعة تورنتو - كندا ، عام 1397 هـ .
- 3) دكتوراه في الهندسة الكهربائية (قوى) جامعة تورنتو - كندا ، عام 1402 هـ .

الأبحاث المنشورة :

مكتوبة بأخر السيرة باللغة الإنجليزية ..

التقارير الفنية المطبوعة

مكتوبة بأخر السيرة باللغة الإنجليزية

الكتب المطبوعة

مكتوبة بأخر السيرة باللغة الإنجليزية

الاهتمامات العلمية :

- 1) أنظمة وتخطيط الطاقة الكهربائية .
- 2) تأثيرات البيئة على أنظمة الجهد العالي .
- 3) تأثيرات الجهد العالي على البيئة (التشويش الكهرومغناطيسي - الأضرار الصحية ...إلخ).
- 4) اختبارات العزل الكهربائي الخاص بمعدات الجهد العالي (المحولات - الكابلات - ...إلخ).
- 5) المواصفات الخاصة بأنظمة القوى .

التاريخ الوظيفي والأكاديمي :

- 1417 هـ . الآن : أستاذ قسم الهندسة الكهربائية - جامعة الملك سعود.
1416 . 1412 هـ : رئيس قسم الهندسة الكهربائية - جامعة الملك سعود.
1417 . 1408 هـ : أستاذ مشارك - قسم الهندسة الكهربائية - جامعة الملك سعود - الرياض .
1408 . 1403 هـ : أستاذ مساعد - قسم الهندسة الكهربائية - جامعة الملك سعود - الرياض .
1402 . 1398 هـ : طالب دراسات عليا لنيل درجة الدكتوراة - جامعة تورنتو - كندا .

- 1395.1397 هـ : طالب دراسات عليا لنيل درجة الماجستير - جامعة تورنتو - تورنتو - كندا .
1392.1393 هـ : معيد - قسم الهندسة الكهربائية - كلية الهندسة - جامعة الرياض (جامعة الملك سعود حالياً) - الرياض .

المجالس :

- 1408.1409 هـ : مجلس كلية الهندسة . جامعة الملك سعود .
1412.1416 هـ : مجلس كلية الهندسة . جامعة الملك سعود .
1411.1413 هـ : مجلس كلية الدراسات العليا . جامعة الملك سعود .
1410.1412 هـ : مجلس إدارة مركز التوزيع الصوتي والتليفزيوني . جامعة الملك سعود .
1417.1421 هـ : عضو المجلس العلمي في المؤسسة العامة للتعليم الفني والتدريب المهني (شؤون الكليات) .
1424.الآن : المجلس العلمي - جامعة الملك سعود - ممثلاً لكلية الهندسة .

منح الأبحاث :

- خلال السنوات الماضية تم الحصول على منح الأبحاث الآتية :
أ) ثلاثة أبحاث دعمت عن طريق مدينة الملك عبدالعزيز للعلوم والتقنية .
ب) بحث دعم من قبل مدينة الملك عبدالعزيز للعلوم والتقنية والشركة السعودية للكهرباء وشركة كابلات الرياض .
ج) بحث مدعم من الشركة السعودية للكهرباء .
د) بحث مدعم من سابق .
هـ) بحث مدعم من ميزانية البحوث الوطنية بجامعة الملك سعود .
و) تسعة بحوث مدعمة من مركز بحوث كلية الهندسة - جامعة الملك سعود أنظر تفاصيل هذه المشاريع بالنسخة الانجليزية .

الأنشطة الأخرى:

- 1) مقرر لجنة الإختبارات الفنية للشبكة الكهربائية الخاصة بقصر الضيافة بالرياض ، وذلك لتقصي الحقائق حول إحتراق بعض المحولات الكهربائية ، 1404 هـ .
- 2) عضو في اللجنة الفنية المكلفة بتقصي الأسباب المؤدية إلى إحتراق بعض محولات التوزيع في مشروع كهرباء الباحة المركزي (المنطقة الجنوبية) ، 1404 هـ .
- 3) الإشراف على اختبار جودة بعض الكابلات الكهربائية المستخدمة في مشروع جامعة الإمام محمد بن سعود الإسلامية بالرياض (الإختبارات أجريت في معمل الجهد الفائق بالكلية) ، 1404 هـ .
- 4) عضو في اللجنة المكلفة بدراسة بعض المشاكل الهندسية الخاصة بمحطة تنقية مجاري الرياض ، 1406 هـ .
- 5) المشرف على نقل أجهزة المعامل ومكاتب قسم الهندسة الكهربائية من مقر الكلية القديم بعليشة إلى مقرها الجديد في الدرعية ، وكذلك الإشراف على توزيع المعامل والمكاتب الخاصة بالقسم بمباني الدرعية ، 1404 هـ .
- 6) مستشار غير متفرغ لصندوق معاشات التقاعد للإشراف على المشاريع الاستثمارية 1403-1408 هـ .

- 7) عضو لجنة الاستلام الابتدائي للمباني الجديدة بالدرعية والخاصة بكليات الآداب والعلوم الإدارية 1404 هـ .
- 8) عضو في لجنة الاستلام النهائي للمباني المذكورة أعلاه ، 1406 هـ.
- 9) عضو في لجنة استلام أجهزة معامل الجامعة بالحلي الجديد بالدرعية ، 1405 هـ .
- 10) الإشراف على تعديل وتجهيز مبني معمل الجهد العالي في مقر الكلية الجديد بعد الانتقال مباشرة ، 1404-1406 هـ .
- 11) الإشراف على معمل الجهد العالي ، 1404 هـ - حتى الآن.
- 12) التعاون مع مدينة الملك عبد العزيز للعلوم والتقنية لمراجعة وتحكيم ودراسة بعض المشاريع المقدمة للمدينة ، 1404 هـ - حتى الآن.
- 13) رئيس لجنة التسجيل وعضو اللجنة المنظمة للمؤتمر الدولي الخاص بأنظمة القوى في الدول السريعة النمو ، والذي عقد في رحاب جامعة الملك سعود ، رجب 1407 هـ ،
- 14) عضو في لجنة استلام محطات التحويل والشبكات الكهربائية في التوسعة الجديد بمستشفى الملك فيصل التخصصي ومركز الأبحاث ، 1413-1414 هـ .
- 15) رئيس لجنة الكابلات وملحقها في الهيئة العربية للمواصفات والمقاييس ، 1413 هـ - حتى الآن.
- 16) عضو لجنة الإشراف على تصاميم المركز الحضاري في حائل التابع لوزارة الشؤون البلدية والقروية ، 1413-1414 هـ .
- 17) عضو في لجنة الاستلام الابتدائي لمباني كلية الزراعة والطب البيطري التابع لفرع جامعة الملك سعود بالقصيم ، 1415 هـ .
- 18) رئيس لجنة الاستلام النهائي للمبني المذكور أعلاه ، 1416 هـ .
- 19) رئيس لجان الاختبارات المعملية في معمل الجهد العالي بالكلية وإصدار تقارير الاجتياز لصالح الشركات الوطنية (المحولات السعودية - وسكوسا - أي بي بي - كابلات الرياض - أي بي أس - جداك إلخ) ، 1403 هـ حتى الآن .
- 20) ممثل الجامعة في لجنة وطنية تدرس بعض المشاكل الناتجة من أنظمة القوى الكهربائية ، 1414-1415 هـ .
- 21) ممثل الجامعة في لجنة وطنية تدرس مستقبل الطاقة الكهربائية بالمملكة .
- 22) عضو في لجنة تدرس الوضع الحالي والمستقبلي لتوليد الكهرباء وصيانة المنشآت الكهربائية في الحرم الجامعي (1416 هـ) .
- 23) رئيس أو عضو في عدة لجان داخل القسم أكاديمية واجتماعية وثقافية .
- 24) رئيس فريق البحث الممول من مدينة الملك عبد العزيز للعلوم والتقنية تحت رقم أت - 6 - 38 ، بعنوان : " دراسة التشويش الكهرومغناطيسي المنبعث من خطوط القدرة الكهربائية بالمنطقة الوسطي من المملكة " ، 1404-1406 هـ . طبعت المدينة هذا التقرير على شكل كتاب يحمل رقم [14] 1408 هـ ، وترجم من قبل هيئة عمليات القوات البرية الملكية السعودية تحت رقم [55] 1413 هـ . (ميزانية المشروع حوالي 500.000 ريال) .
- 25) رئيس فريق البحث الممول من مدينة الملك عبد العزيز للعلوم والتقنية تحت رقم أت - 9 - 33 ، بعنوان : " تأثير الأتربة والغبار على خصائص جهد اخيار الثغرات الهوائية " ، 1407-1410 هـ ، (ميزانية المشروع حوالي 800.000 ريال) .

- (26) رئيس فريق البحث الممول من مدينة الملك عبد العزيز للعلوم والتقنية تحت رقم أت - 15-46 ، وبعنوان " دراسة الأنهيار الكهربائي لشبكة كابلات الجهد الفائق المعزولة بالبلومر والمستعملة بالمملكة " ، 1416-1421هـ (ميزانية المشروع حوالي 2.300.000 ريال) .
- (27) عضو في فريق البحث الممول من مركز البحوث ، كلية الهندسة تحت رقم كهر - 3-1411 ، وبعنوان : " دراسة استقرار واعتمادية نظام القدرة الكهربائية في شبكة الشركة الموحدة للكهرباء بالنطقة الوسطي ديناميكياً ووقتياً ، 1414-1416هـ .
- (28) رئيس فريق البحث رقم 414/9 والممول من مركز البحوث بكلية الهندسة - جامعة الملك سعود ، بعنوان : " تأثير العواصف الصحراوية على أداء الثغرات الهوائية المحصورة بين ثلاثة قضبان والمستخدمة في أجهزة حماية أنظمة الجهد الفائق ، 1414-1417هـ .
- (29) الباحث في المشروع البحثي رقم 14/14 والممول من مركز بحوث كلية الهندسة - جامعة الملك سعود ، بعنوان : " تأثير الأتربة والغبار على انهيار الثغرات الهوائية تحت جهد مستمر" ، 1414-1417هـ .
- (30) أستاذ زائر لجامعة ليدز ببريطانيا للعمل مع الدكتور ألن بموضوع العوازل الهوائية ، صيف 1414هـ .
- (31) أستاذ زائر لجامعة واترلو - كندا للعمل مع الأستاذ كروس والدكتورة جيرام حول موضوع التطبيقات الصناعية للتفريغ التاجي النبضي ، صفر- جمادى الأولى - 1416هـ .
- (32) مستشار غير متفرغ للمؤسسة العامة للتعليم الفني والتدريب المهني (شؤون الكليات) ، 1417-1422هـ .
- (33) رئيس فريق البحث الممول من مركز البحوث - كلية الهندسة تحت رقم 421/43 تحت عنوان : " تأليف كتاب تعليمي بعنوان أساسيات الجهد العالي " 1421-1423هـ .
- (34) رئيس فريق البحث الممول من شركة سابك عن طريق مركز البحوث - كلية الهندسة تحت رقم 421/18 وتحت عنوان " تناقص جوره عزل البولير المنتج في المملكة بسبب الظروف البيئية " 1421-1423هـ .
- (35) المنسق والمشارك في عدة حلقات علمية متخصصة في الجهد العالي مقدمة لمهندس الشركات المحلية 1410-1423هـ .
- (36) أستاذ ذاثر لجامعة ماليزيا التكنولوجية ماليزيا ، في مارس ، يونيو ، يوليو ، أغسطس 2002م وذلك لأعطاء محاضرات ومراجعة الخطة الأكاديمية وتقديم بعض الاستشارات في البحوث والدراسات العليا .
- (37) الباحث الرئيس لفريق بحث فاز لمرتين في أحسن جائزة لبحث تطبيقي في مجال الطاقة الكهربائية بدول الخليج (سيحري الخليج) .
- (38) مقرر لجنة تعيينات أعضاء هيئة التدريس بجامعة الملك سعود 2003-2008 .
- (39) محاضر زائر في جامعة السلطان قابوس - سلطنة عُمان - فبراير 2005م .
- (40) محاضر في عدة كورسات متقدمة قدمت للمهندسين في عدة مجالات هندسة القوى الكهربائية والجهد العالي (أنظر أسماء هذه الكورسات بالنسخة الإنجليزية) .
- (41) عضو في لجنة هندسية في جامعة الملك سعود لمراجعة التصاميم الهندسية لجامعة الملك خالد بإمها 2004-2005 .
- (42) عضو في لجنة هندسية في وزارة التعليم العالي لمراجعة التصاميم الهندسية لعدة جامعات وكليات جديدة في مناطق متعددة في المملكة 2005 - الآن .

- (43) رئيس لجنة لدراسة اسباب فشل المحولات الكهربائية في جنوب المملكة 2007-2008
- (44) المشرف على كرسي ارامكو السعودية للطاقة الكهربائية 2008-الان
- (45) رئيس فريق البحث الممول من مدينة الملك عبد العزيز للعلوم والتقنية تحت رقم
2-ENE215-08، وبعنوان " الاختبار المتسارع والتشخيص لروابط كابلات الجهد
المتوسط المستعملة بالمملكة " 2010 الان . (ميزانية المشروع حوالي 1.300.000 ريال).
- (46) عضو في لجنة استشارية هندسية لمراجعة التصميم الهندسية في مشروع وقف خادم الحرمين
الشرفين في المدينة المنورة 1431 الى الان
- (47) نائب ريس اللجنة الاستشارية للطاقة الكهربائية في جامعة الملك سعود 1434 الى الان

Curriculum Vitae

Name	Abdulrahman Ali Al-Arainy
Nationality	Saudi
Position Held	Professor
Present Academic Rank	Professor
Address	Electrical Engineering Department College of Engineering King Saud University P.O. Box 800 Riyadh 11421 Saudi Arabia Phone # 966-1-4676764 Fax # 966-1-4676757 e-mail: AARAINY@ksu.edu.sa

Academic Qualification

- 1974 Bachelor of Electrical Engineering, University of Riyadh (Presently King Saud University)
- 1977 Master of Applied Science in Electrical Engineering (Power), University of Toronto, Canada.
- 1982 Ph.D in Electrical Engineering (Power), University of Toronto, Canada.

M.Sc. Thesis Title

The Effects of Rain on Electromagnetic Characteristics of Corona

Ph.D. Thesis Title

Laboratory Analysis of Gap Discharge in Power Line

Research Interest

1. Power system planning
2. Influence of environment on high voltage network.
3. Influence of high voltage network on environment. (EMI, electric and magnetic effects, etc.)
4. High voltage testing for power apparatus.
5. Standards for HV equipment and system.
6. Engineering and technical education
7. Commercial and industrial building design.

Position Held

1996 – present	Professor, Electrical Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.
1991 - 1995	Chairman, Electrical Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.
1988 - 1996	Associate Professor, Electrical Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.
1990 - 1992	Member, College of Graduate Studies Council.
1982 - 1988	Assistant Professor, Electrical Engineering Department, College of Engineering, King Saud University.
1982 - 1988	Member of Engineering Consulting Team supervising Pension Fund Investment Projects. (part time consultant).
1978 - 1982	Ph.D student - University of Toronto, Toronto, Canada.
1975 - 1977	M.A.Sc. student, University of Toronto, Toronto, Canada.
1973 - 1974	Teaching Assistant, College of Engineering, University of Riyadh (presently King Saud University).

Other Main Activities

1. Chairman of Technical Committee responsible for performing field tests on Guest Palace electrical power system (Riyadh) to find the reasons behind the repeated failure of distribution transformers 1984.
2. Member of Technical Team investigating the repeated failures of distribution transformers in Baha area (South Region) 1984.

3. Member of Engineering Team investigating some technical problems in Riyadh Sewage Treatment Plant 1984.
4. Member of Substantial Acceptance Committee for the new building of College of Arts, College of Education, and College of Administrative Sciences 1984.
5. Member of Final Acceptance Committee for the above buildings 1986.
6. Member of Acceptance Committee for the University Laboratories Installations 1985.
7. Supervised the modification and equipment installations at High Voltage Laboratory in the new Campus 1984-1986.
8. High Voltage Laboratory Supervisor (1984 - present).
9. Principle Investigator for the Project sponsored by King Abdulaziz City for Science and Technology No.AR-6-38 and titled "Electromagnetic Interference from Power lines in the Central Region of Saudi Arabia 1984-1986.
10. Principle Investigator for the project sponsored by King Abdulaziz City for Science and Technology No.AR-9-33 and titled "Influence of Sand and Dust Particles on the Breakdown Characteristics of Air Gaps" 1987-1990. This report has been published as book by KACST, No.14, 1988, and was translated to Arabic by MODA in 1993.
11. Chairman of the registration committee and member of the organizing committee for the international conference held at King Saud University, "Power System in Fast Developing Countries", Riyadh, 1987.
12. Member of the acceptance committee for substation and electrical installation at the new expansion project at King Faisal Hospital and the Research Center, Riyadh, 1993-1994.
13. Chairman of the cables and their accessories subcommittee at Saudi Arabian Standard Organization (SASO), 1993- present.
14. Member of consulting committee supervising the design of Civic Center in Hail (belong to Ministry of Municipalities) 1993-1994.
15. The Principle Investigator of a research team that won the prize for the best applied research in the area of Electrical Power which is awarded by Gulf CIGRE.
16. Principle Investigator on the research project No.9/414 sponsored by the College of Engineering, Research Center under the title, "Influence of Desert Pollution on the Performance of Multiple Electrode High Voltage Protective Rod Gaps", 1994 – 1998.

17. The Investigator on the research project No.14/414 sponsored by the College of Engineering, Research Center, under the title "The Influence of Desert Pollution on Voltage Breakdown under DC", 1994 – 1997.
18. The Chairman of several quality testing committees dealing with various apparatus for several clients, (STC, WESCOSA, Riyadh Cables, JEDAC, EPS, ABB, ..., etc.), 1993-present.
19. King Saud University's representative on national committee dealing with some aspects of electrical power network, 1994.
20. Member of Scientific Council – The General Organization for Technical Education and Vocational Training – Technical Colleges Directorate, 1996 – 2000.
21. Consultant for the General Organization for Technical Education and Vocational Training, Technical Colleges Directorate, 1996 – 2001.
22. Member of substantial acceptance committee for the College of Agriculture – Gassim Branch – King Saud University, 1995.
23. Chairman of the final acceptance committee for the above building 1996.
24. Principal investigator, the research project No. 43/421 sponsored by the College of Engineering, Research Center, under the title "Authoring a book titled (Fundamentals of High Voltage Engineering) 2000 – 2001.
25. Principal investigator, the research project No. 18/421 sponsored by SABIC through the Research Center, College of Engineering, titled "Environmentally Induced Degradation of Insulating Polymers Produced in Saudi Arabia", 2000 – 2003.
26. Coordinator of several short courses designed for Practicing Engineers in the area of High Voltage Engineering 1990 – 2002.
27. Visiting professor to University of Technology, Malaysia in March, and June to August 2002. Given specialized seminars and revised their undergraduate curriculum. Advised on their research topics and post-graduate programmes.
28. Supervisor of Saudi Aramco Chair in Electrical Power 2008 – now.
29. PI in KACST project about HV cable joint 2010 – now.
30. Member of the consultant committee to review the electrical design of Universities and Colleges in Saudi Arabia 2005 – now.
31. Chairman of Research Team to investigate the transformer failure in the South region of Saudi Arabia 2007 – 2008.
32. vice chairman of electrical distribution committee at KSU

Publications

A) Journal Papers

1. W. Janischewskyj, **A. Al-Arainy**, "Corona Characteristics of Simulated Rain", IEEE Trans. on PAS, Vol. 100, No.2, Feb. 1981, pp.539-551.
2. N.H. Malik, **A. Al-Arainy**, "Charge Simulation Modelling of the Three Core Belted Cables", IEEE Trans. on Electrical Insulation, Vol. EI-20, No.3, June 1985, pp. 499-503.
3. N.H. Malik-, **A. Al-Arainy**, "Electrical Stress Distribution in Three Core Belted Cables", IEEE Trans. on Power Delivery, Vol. PWRD-1, No.3, 1987, pp. 589-595.
4. N.H. Malik, **A. Al-Arainy**, A.M. Kailani, M.J. Khan, "Discharge Inception Voltages Due to Presence of Voids in Power Cables", IEEE Trans. on Electrical Insulation, Vol. EI-22, No.6, 1987, pp.787-793.
5. N.H. Malik-, **A. Al-Arainy**, "Statistical Variation of DC Corona Pulse Amplitudes in Point-Plane Air Gaps", IEEE Trans on Elect. Insul., Vol. EI-22, No.6, Dec. 1987, pp.825-827.
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