Curriculum Vitae

Prof. Dr. Emad Bakr Abdulkareem Al-Zangana

Mustansiriyah University – College of Science-Dept. of Math.
***Mobile**:+9647715260052*
***Email₁:**e.b.abdulkareem@uomustansiriyah.edu.iq*

***Email₂:**emad77_kaka@yahoo.com*

PERSONAL SUMMARY:

- **Full Name:** Emad Bakr Abdulkareem
- **Family Name:** Al-Zangana
- **Email:**emad77_kaka@yahoo.com and e.b.abdulkareem@uomustansiriyah.edu.iq
- **Professional address:** Lecturer at Department of Mathematics /College of Science/ Mustansiriyah University.
- **Post:** Prof.
- **Specialist:** Number Theory\ Algebraic Geometry
- **Research Interests:**
  Finite Fields, Finite Projective Geometry, Coding Theory, Cryptography.

EDUCATION:

- **PhD.** in Mathematics/Number Theory/ Sussex University/UK /2011. Research project entitled (**The Geometry of the Plane of Order Nineteen and its Application to Error-Correcting Codes**).
- **M.Sc.** in Mathematics / college of sciences /Al-Mustansiriyah University, Iraq, with grade (2001-2002).

  First year: Theoretical courses
  Second Year: Research project entitled (**On the Symmetry Between Lie group and Lie Groupiod Action**). The project was under supervision of Assist. Prof. Dr Abid A. Al Ta'ai.

- **B.Sc**. in Mathematics/ college of sciences /Al-Mustansiriyah University, Iraq, with (1998-1999).

ACADEMIC HONORS AND AWARDS:

- #1:

ACADEMIC /TEACHING EXPERIENCE:

- Lecturer in practical mathematics from 2001 till, now at college of Sciences/Dep. of Math. /Al-Mustansiriyah University, Baghdad, Iraq.
- Taught at College of Education Anbbar University, Iraq, (2002-2003).

- Taught at Faculty of Science & Science Education/ University of Sulaimani, Iraq, Kurdistan Region, (2013-2014)
- Participation in many scientific seminars inside and outside Iraq, as well as seminars and literary social inside Iraq Experience in following software programs languages:
- Experience in following software programs and languages:

1- Macintosh, UNIX. **2-** Office: Word, Power point, Excel. **3-** Gap. **4-** Latex. **5-** Matlab.

COURSES TAUGHT:

Undergraduate			Graduate		
1-	Calculus	First Level	1-	Functional Analysis	Master Course
2-	Finite Mathematics	First Level	2-	Finite Fields and Coding Theory	Master Course
3-	Applied Mathematics	Third Level			
4-	Abstract Algebra	Third Level			
5-	Complex Analysis	Fourth Level			
6-	Foundation of mathematics	First Level			

PROFESSIONAL AFFILIATIONS:

- Chairman of the Committee website in the department.
- Chairman of several important committees within the college and department.

PUPLICATIONS:

1. Abid A. Al-Ta'ai and Emad B. Abdulkareem. **On The Symmetry Between Lie Group and Lie Groupiod Action**. Journal of College of Education, Al-Mustansiriyah University, No. 3, (247-260), Iraq, **2013.**

2. Emad B. Abdulkareem. **On Equivalence of Certain Types of Differentiable Categories**. Journal of College of Education, Al-Mustansiriyah University, No.3, (320-334), Iraq, **2007.**
3. Emad B. Abdulkareem" **On $g(g^*)m$-closed sets**", Al-Mustansiriyah Journal of Science, Vol. 17, No. 4,(82-93), Iraq, **2006.**

4. Emad B. Abdulkareem and Bassam J. Jasim. **On θ-Convergence of Net and Falter**. Al-Mustansiriyah Journal of Science, Vol. 17, No. 2, (50-59), Iraq, **2006.**

5. Emad B. Abdulkareem. **Classification of $(k;3)$-Arcs in $PG(2,13)$ for $k = 5,6,7$**. J. of Al-Rafidain University College for Science, No. 31, **2013.**
6. Emad B. Abdulkareem. **Complete and Incomplete Elliptic Curves Over the Finite Field of Order 11 and 13.** Al-Mustansiriyah Journal of Science, Vol. 24, No. 1, (135-142), Iraq, **2013.**
7. Emad B. Abdulkareem **," On Non-Singular Plane Cubics Curves Over $F_q, q = 2,3,5,7$",** Journal of College of Education, Al-Mustansiriyah University, No. 1, (149-160), Iraq, **2013.**
8. Emad Bakr Al-Zangana. **Groups Effect of Types D_5 and A_5 on the Points of Projective Plane Over $F_q, q = 29,31$.** Ibn Al-Haitham Jour. For pure and appl. Sci., Vol. 26. No.3,(410-423), Iraq, **2013.**
9. Emad Bakr Al-Zangana, and J.W.P. Hirshfeld. **Classification of the Projective Line of Order Nineteen and its Application to Error-Correcting Codes.** 2nd International conference of mathematics and its applications, Al-Basra University, Basrah Journal of Science (A) Vol.34(3), 196-211, **2016.**

10. Murtadha J. Shnawa, Emad B. Al-Zangana and Bassam J, Al-Asadi. **Exceptional Sets as Characteristic for Closed, Compact and Proper Functions.** J. of the College of Basic Education, Iraq, **19**(78), (121-126), **2013.**
11. Emad Bakr Al-Zangana**, " Results in Projective Geometry** $PG(r,23)$**,** $r=1,2$**".** Iraqi Journal of Science, Vol. 57, No. 2A, (964-971), **2016.**
12. Emad B. Abdulkareem. **Classification of Elliptic Cubic Curves Over the Finite Field of Order Nineteen.** Baghdad Science Journal, Vol.13(4),(846-852), **2016.**
13. Emad Bakr Al-Zangana and Saja Abd Joudah. **Representation of** $PG(3,5)$ **by** r**-Subspaces,** r**=1,2.** Mathematics and Statistics Journal. 3(2): 7-11, **2017.**
14. Emad Bakr Al-Zangana and Saja Abd Joudah**. Action of Groups on the Projective Plane over the Field** $GF(41)$**.** Ibn AL-Haitham First International Scientific Conference, Published in J. Phys.: Conf. Ser. **1003,** 012059, **2018.**
15. Emad Bakr Al-Zangana and Elaf Abdul Satar Shehab**. Classification of** k**-Sets in** $PG(1,25)$**, for** $k=4,\dots,13.$ Iraqi Journal of Science, 59(1B), (360-368), **2018.**
16. Emad Bakr Al-Zangana and Elaf Abdul Satar Shehab**. Conic Parameterization in** $PG(2,25)$**.** Al-Mustansiriyah Journal of Science, Vol. 29, Issue 2, **2018.**
17. Jinan F. N. Al-Jobory, Emad B. Al-Zangana and Faez Hassan Ali. **Modular Representations of the** F_pW_n**-Specht Modules** $S_k(\lambda,\mu)$ **as Linear codes**. Journal of Theoretical and Applied Information Technology, 97(19), 4978-4995, **2019.**
18. Jinan F. N. Al-Jobory, Emad B. Al-Zangana and Faez Hassan Ali. **Modular Irreducible Representations of the** F_pW_4**-Submodules** $N_{F_p}(\lambda,\mu)$ **of the Specht Modules** $S_{F_p}(\lambda,\mu)$ **as Linear Codes where** W_4 **is the Weyl Group of Type** B_4. Journal of Theoretical and Applied Information Technology, 98(2), 207-232, **2020.**
19. Jinan F. N. Al-Jobory, Emad B. Al-Zangana and Faez Hassan Ali. **The number of the generating matrices of the subspaces which represent an** F_pW_n**-submodule where Fp = GF(p) and** W_n **is the Weyl group of type** B_n. Italian Journal of Pure and Applied Mathematics, 45, 932-939, **2021.**
20. Sadeq Hamdallah Naji and Emad Bakr Abdulkareem. **Cubic Curves Over the Finite Field of Order Twenty Seven.** J. Phys.: Conf. Ser. 1664, 012025, **2020**. doi:10.1088/1742-6596/1664/1/012025.
21. Sadeq Hamdallah Naji and Emad Bakr Abdulkareem. **Cubic Curves Over the Finite Field of Order Twenty-Five**. J. Phys.: Conf. Ser. 1818, 012079, **2021.** doi:10.1088/1742-6596/1818/1/012079.
22. Sadeq Hamdallah Naji and Emad Bakr Abdulkareem. **Special NMDS Codes of Dimension Three over the Finite Field of Order 27**. AIP Conference Proceedings, 2414(1), **2023.**
23. M. M. Ibrahim and E B Al-Zangana. **Classification of Subsets in Finite Projective Line Over Galois Field of Order Twenty-Seven**. J. Phys.: Conf. Ser. 1818, 012087, **2021.**
24. Maha Majeed Ibrahim, Emad Bakr Al-Zangana. **Weight Distribution of Some Codewords of 3-ary Linear Code over** $GF(27)$. Al-Mustansiriyah Journal of Science, 31(4), 101-106, **2020.**
25. Najm Abdulzahra Makhrib Al-seraji, Abeer Jabbar Al-Rikabi, Emad Bakr Al-Zangana. **Represent the space PG(3,8) by Subspaces and Subgeometries**. AIP Conference Proceedings, 2414(1), **2023.**
26. Najm Abdulzahra Makhrib Al-seraji, Abeer Jabbar Al-Rikabi, Emad Bakr Al-Zangana. **Caps by Groups Action on the** $PG(3,8)$**.** Iraqi Journal of Science (IJS), 63(4), 1755-1764, **2022.**
27. Najm Abdulzahra Makhrib Al-seraji, Abeer Jabbar Al-Rikabi, Emad Bakr Al-Zangana. **New Arcs in** $PG(3,8)$ **by Singer Group.** Al-Mustansiriyah Journal of Science, 33(2), **70-76, 2022**.
28. Emad Bakr Al-Zangana. **Splitting of** $PG(1,27)$ **by Sets and Orbits, and Arcs on the Conic.** Iraqi Journal of Science (IJS), 62(6), 1979-1985, **2021.**
29. Emad Bakr Al-Zangana and Elaf Abdul Satar Shehab. **Certain Types of Linear Codes over the Finite Field of order Twenty-Five.** Iraqi Journal of Science (IJS), 62(11), 4019-4031, **2021**.
30. Emad Bakr Al-Zangana. Projective MDS Codes Over $GF(27)$. **Baghdad Sci. J.,** 18(2(Suppl.):1125-1132, **2021.**

31. Nada Yassen Kasm Yahya and Emad Bakr Al-Zangana. **The Non-existence of $[1864,3,1828]_{53}$Linear Code by Combinatorial Technique.** International Journal of Mathematics and Computer Science, 16(4), 1575–1581, **2021.**
32. Emad Bakr Al-Zangana and Nada Yassen Kasm Yahya. **Subgroups and orbits by companion matrix in three dimensional projective space**. **Baghdad Sci. J.** 19(4):805-810, **2022.**
33. Jinan F. N. Al-Jobory1, Emad B. Al-Zangana and Faez Hassan Ali. **Modular Irreducible Representations of the F_pW_4-Submodules $N_{F_p}(\lambda,\mu)$ of the Modules $M_{F_p}(\lambda,\mu)$as Linear Codes, where W_4 is the Weyl Group of Type B_4.** Al-Nahrain Journal of Science ANJS, 24 (2), June, pp. 48-63**, 2021.**
34. Jabbar Sharif Radhi and Emad Bakr Al-Zangana**. Complete (k,r)-Caps From Orbits In $PG(3,11)$.** Iraqi Journal of Science (IJS), 64(1), **pp.** 347-353, **2023.**
35. Jabbar Sharif Radhi and Emad Bakr Al-Zangana**. Construction of Complete $(k;r)$-Arcs from Orbits in $PG(3,11)$.** Al-Mustansiriyah Journal of Science, **33(3),** pp. 48-53, **2022.**
36. Jabbar Sharif Radhi and Emad Bakr Al-Zangana. **Extension of Cap by Size and Degree in the Space $PG(3,11)$.** Ibn Al-Haitham Journal for Pure and Applied Sciences (**IHJPAS**). 36(2), pp. 375–382. 20/4/2023, https://doi.org/10.30526/36.2.3025. **2023.**
37. Saja Makki Attook and Emad Bakr Al-Zangana. **Use Algebra of Group Action to Find Special Types of Caps in $PG(3,13)$.** Iraqi Journal of Science (IJS), 64(8), pp. 4492-5001, 30/8/2023, **2023.**
38. Saja Makki Attook and Emad Bakr Al-Zangana. Special Arcs in **$PG(3,13)$.** Al-Mustansiriyah Journal of Science, **33(4), 2** pp. 86-91, 2022.
39. Saja Makki Attook and Emad Bakr Al-Zangana. **Extension of Size and Degree of (k,r)-Cap in $PG(3,13)$.** Ibn Al-Haitham Journal for Pure and Applied Sciences (**IHJPAS**), 37, **2024. Accepted.**

PROFFESSIONAL DEVELOPMENT

Conferences					
	Conference Name	Place	Country	Date	Type of Participate
1	British Postgraduate Model Theory	Leeds University	UK	19-21/01/2011	Attended
2	Two One-Day Colloquia in Combinatorics	London School of Economics and Political Science	UK	18-19/05/2011	Attended
3	Basra Second International Conference of Mathematics and its Applications	Basra University	Iraq	23-24/10/2013	Participate
4	Cimpa-Kurdistan-Iraq Research School, Inverse Problem: Theory and Applications	Salahaddin University	Kurdistan Region/Iraq	5-14/05/2014	Attended
5	Ibn Al-Haitham 1st. International Scientific Conference	Baghdad Univ.	College of Education for Pure Science(IbnHaitham)	13-14/12/2017	Participate

Workshop and Seminar					
Name		Place	Country	Date	Type of Participate
1	Writing Your Thesis	Sussex University	UK	11/11/2009	Attended
2	Oral Presentation Skills-Presentation Delivery	Sussex University	UK	12/11/2009	Attended
3	Word Processing(word 2007):Using Word to Write your Thesis.	Sussex University	UK	18/11/2009	Attended
4	Introduction to Latex	Sussex University	UK	19/11/2009	Attended
5	Introduction to Unix	Sussex University	UK	01/12/2009	Attended
6	Spreadsheets(Excl 2007): A Step Further 2	Sussex University	UK	16/04/2010	Attended
7	Creating Web Pages With Dreamweaver	Sussex University	UK	10/05/2010	Attended
8	Endnote: Introduction	Sussex University	UK	16/05/2010	Attended
9	Presentation(PowerPoint 2007): A Step Further	Sussex University	UK	24/05/2010	Attended

السيرة الذاتية

اسم الشخص الكامل

الجامعة المستنصرية – كلية ---العلوم-------
***Mobile**: +9647715260052*
***Email$_1$:**e.b.abdulkareem@uomustansiriyah.edu.iq*

***Email$_2$:**emad77_kaka@yahoo.com*

ملخص تعريفي:

الاسم: عماد بكر عبدالكريم محمد الزنكنة
المواليد: 1977/1/9
مكان الولادة:بغداد
الحالة الزوجية: متزوج
الاختصاص الدقيق: نظرية الاعداد/ الهندسة الجبرية
الاهتمامات: الهندسة الجبرية المنتهية, نظرية الترميز, التشفير

الشهادات الدراسية:

- #1: Ph.D. دكتوراه /نظرية الاعداد / جامعة سسكس/المملكة المتحدة /نظرية الاعداد/2011
- #2: M.Sc. ماجستير /الجامعة المستنصرية/تبولوجيا تفاضلية/2002
- #3: B.Sc.بكلوريوس/الجامعة المستنصرية/رياضيات/1999

الجوائز والتكريم الأكاديمي

- #1:

الخبرة الأكاديمية والتدريس:

- 1- تدريسي في قسم الرياضيات كلية العلوم الجامعة المستنصرية منذ 2001 ولحد الان.
- درست في كلية التربية قسم الرياضيات جامعة الانبار 2003.
- درست ماجستير كلية التربية قسم الرياضيات جامعة السليمانية.
- خبرة في البرامجيات الاتية:
وندوز, ماكنتوش, لانكس, وورد , GAP, لاتكس

المقررات الدراسية التي تم تدريسها:

الدراسات العليا	الدراسات الأولية
1- تحليل دالي	**1- حسبان التفاضل والتكامل**
2- الحقول المنتهية ونظرية الترميز	**2- تحليل العقدي**
	3- الجبر المجرد
	4- الرياضيات التطبيقة

	5-المنتهية 6- اسس الرياضيات

الأنتساب المهني او الجمعيات:

- لجان
- رئيس ... الخ

المنشورات العلمية

- Abid A. Al-Ta'ai and Emad B. Abdulkareem. **On The Symmetry Between Lie Group and Lie Groupiod Action**. Journal of College of Education, Al-Mustansiriyah University, No. 3, (247-260), Iraq, **2013.**
- Emad B. Abdulkareem. **On Equivalence of Certain Types of Differentiable Categories**. Journal of College of Education, Al-Mustansiriyah University, No.3, (320-334), Iraq, **2007.**
- Emad B. Abdulkareem" **On $g(g^*)m$-closed sets**", Al-Mustansiriyah Journal of Science, Vol. 17, No. 4,(82-93), Iraq, **2006.**
- Emad B. Abdulkareem and Bassam J. Jasim. **On θ-Convergence of Net and Falter**. Al-Mustansiriyah Journal of Science, Vol. 17, No. 2, (50-59), Iraq, **2006.**
- Emad B. Abdulkareem. **Classification of $(k;3)$-Arcs in $PG(2,13)$ for $k=5,6,7$.** J. of Al-Rafidain University College for Science, No. 31, **2013.**
- Emad B. Abdulkareem. **Complete and Incomplete Elliptic Curves Over the Finite Field of Order 11 and 13.** Al-Mustansiriyah Journal of Science, Vol. 24, No. 1, (135-142), Iraq, **2013.**
- Emad B. Abdulkareem **," On Non-Singular Plane Cubics Curves Over $F_q, q=2,3,5,7$",** Journal of College of Education, Al-Mustansiriyah University, No. 1, (149-160), Iraq, **2013.**
- Emad Bakr Al-Zangana. **Groups Effect of Types D_5 and A_5 on the Points of Projective Plane Over $F_q, q=29,31.$** Ibn Al-Haitham Jour. For pure and appl. Sci., Vol. 26. No.3,(410-423), Iraq, **2013.**
- Emad Bakr Al-Zangana, and J.W.P. Hirshfeld. **Classification of the Projective Line of Order Nineteen and its Application to Error-Correcting Codes.** 2nd International conference of mathematics and its applications, Al-Basra University, Basrah Journal of Science (A) Vol.34(3), 196-211, **2016.**
- Murtadha J. Shnawa, Emad B. Al-Zangana and Bassam J, Al-Asadi. **Exceptional Sets as Characteristic for Closed, Compact and Proper Functions.** J. of the College of Basic Education, Iraq, **19**(78), (121-126), **2013.**
- Emad Bakr Al-Zangana**, " Results in Projective Geometry $PG(r,23)$, $r=1,2$".** Iraqi Journal of Science, Vol. 57, No. 2A, (964-971), **2016.**
- Emad B. Abdulkareem. **Classification of Elliptic Cubic Curves Over the Finite Field of Order Nineteen.** Baghdad Science Journal, Vol.13(4),(846-852), **2016.**
- Emad Bakr Al-Zangana and Saja Abd Joudah. **Representation of $PG(3,5)$ by r-Subspaces, r=1,2.** Mathematics and Statistics Journal. 3(2): 7-11, **2017.**
- Emad Bakr Al-Zangana and Saja Abd Joudah**. Action of Groups on the Projective Plane over the Field $GF(41)$.** Ibn AL-Haitham First International Scientific Conference, Published in J. Phys.: Conf. Ser. **1003,** 012059, **2018.**
- Emad Bakr Al-Zangana and Elaf Abdul Satar Shehab**. Classification of k-Sets in $PG(1,25)$, for $k=4,\dots,13.$** Iraqi Journal of Science, 59(1B), (360-368), **2018.**
- Emad Bakr Al-Zangana and Elaf Abdul Satar Shehab**. Conic Parameterization in $PG(2,25)$.** Al-Mustansiriyah Journal of Science, Vol. 29, Issue 2, **2018.**
- Jinan F. N. Al-Jobory, Emad B. Al-Zangana and Faez Hassan Ali. **Modular Representations of the F_pW_n-Specht Modules $S_k(\lambda,\mu)$ as Linear codes**. Journal of Theoretical and Applied Information Technology, 97(19), 4978-4995, **2019.**

- Jinan F. N. Al-Jobory, Emad B. Al-Zangana and Faez Hassan Ali. **Modular Irreducible Representations of the F_pW_4-Submodules $N_{F_p}(\lambda,\mu)$ of the Specht Modules $S_{F_p}(\lambda,\mu)$ as Linear Codes where W_4 is the Weyl Group of Type B_4.** Journal of Theoretical and Applied Information Technology, 98(2), 207-232, **2020.**
- Jinan F. N. Al-Jobory, Emad B. Al-Zangana and Faez Hassan Ali. **The number of the generating matrices of the subspaces which represent an F_pW_n-submodule where Fp = GF(p) and W_n is the Weyl group of type B_n.** Italian Journal of Pure and Applied Mathematics, 45, 932-939, **2021.**
- Sadeq Hamdallah Naji and Emad Bakr Abdulkareem. **Cubic Curves Over the Finite Field of Order Twenty Seven**. J. Phys.: Conf. Ser. 1664, 012025, **2020**. doi:10.1088/1742-6596/1664/1/012025.
- Sadeq Hamdallah Naji and Emad Bakr Abdulkareem. **Cubic Curves Over the Finite Field of Order Twenty-Five**. J. Phys.: Conf. Ser. 1818, 012079, **2021.** doi:10.1088/1742-6596/1818/1/012079.
- Sadeq Hamdallah Naji and Emad Bakr Abdulkareem. **Special NMDS Codes of Dimension Three over the Finite Field of Order 27**. AIP Conference Proceedings, 2414(1), **2023.**
- M. M. Ibrahim and E B Al-Zangana. **Classification of Subsets in Finite Projective Line Over Galois Field of Order Twenty-Seven**. J. Phys.: Conf. Ser. 1818, 012087, **2021.**
- Maha Majeed Ibrahim, Emad Bakr Al-Zangana. **Weight Distribution of Some Codewords of 3-ary Linear Code over $GF(27)$**. Al-Mustansiriyah Journal of Science, 31(4), 101-106, **2020.**
- Najm Abdulzahra Makhrib Al-seraji, Abeer Jabbar Al-Rikabi, Emad Bakr Al-Zangana. **Represent the space PG(3,8) by Subspaces and Subgeometries**. AIP Conference Proceedings, 2414(1), **2023.**
- Najm Abdulzahra Makhrib Al-seraji, Abeer Jabbar Al-Rikabi, Emad Bakr Al-Zangana. **Caps by Groups Action on the $PG(3,8)$.** Iraqi Journal of Science (IJS), 63(4), 1755-1764, **2022.**
- Najm Abdulzahra Makhrib Al-seraji, Abeer Jabbar Al-Rikabi, Emad Bakr Al-Zangana. **New Arcs in $PG(3,8)$ by Singer Group.** Al-Mustansiriyah Journal of Science, 33(2), **70-76, 2022**.
- Emad Bakr Al-Zangana. **Splitting of $PG(1,27)$ by Sets and Orbits, and Arcs on the Conic.** Iraqi Journal of Science (IJS), 62(6), 1979-1985, **2021.**
- Emad Bakr Al-Zangana and Elaf Abdul Satar Shehab. **Certain Types of Linear Codes over the Finite Field of order Twenty-Five.** Iraqi Journal of Science (IJS), 62(11), 4019-4031, **2021**.
- Emad Bakr Al-Zangana. Projective MDS Codes Over $GF(27)$. **Baghdad Sci. J.**, 18(2(Suppl.):1125-1132, **2021.**
- Nada Yassen Kasm Yahya and Emad Bakr Al-Zangana. **The Non-existence of $[1864,3,1828]_{53}$Linear Code by Combinatorial Technique.** International Journal of Mathematics and Computer Science, 16(4), 1575–1581, **2021.**
- Emad Bakr Al-Zangana and Nada Yassen Kasm Yahya. **Subgroups and orbits by companion matrix in three dimensional projective space**. **Baghdad Sci. J.** 19(4):805-810, **2022.**
- Jinan F. N. Al-Jobory1, Emad B. Al-Zangana and Faez Hassan Ali. **Modular Irreducible Representations of the F_pW_4-Submodules $N_{F_p}(\lambda,\mu)$ of the Modules $M_{F_p}(\lambda,\mu)$as Linear Codes, where W_4 is the Weyl Group of Type B_4.** Al-Nahrain Journal of Science ANJS, 24 (2), June, pp. 48-63**, 2021.**
- Jabbar Sharif Radhi and Emad Bakr Al-Zangana**. Complete (k,r)-Caps From Orbits In $PG(3,11)$.** Iraqi Journal of Science (IJS), 64(1), **pp.** 347-353, **2023.**
- Jabbar Sharif Radhi and Emad Bakr Al-Zangana**. Construction of Complete $(k;r)$-Arcs from Orbits in $PG(3,11)$**. Al-Mustansiriyah Journal of Science, **33(3),** pp. 48-53, **2022.**
- Jabbar Sharif Radhi and Emad Bakr Al-Zangana. **Extension of Cap by Size and Degree in the Space $PG(3,11)$.** Ibn Al-Haitham Journal for Pure and Applied Sciences (**IHJPAS**). 36(2), pp. 375–382. 20/4/2023, https://doi.org/10.30526/36.2.3025. **2023.**
- Saja Makki Attook and Emad Bakr Al-Zangana. **Use Algebra of Group Action to Find Special Types of Caps in $PG(3,13)$.** Iraqi Journal of Science (IJS), 64(8), pp. 4492-5001, 30/8/2023, **2023.**
- Saja Makki Attook and Emad Bakr Al-Zangana. Special Arcs in **$PG(3,13)$.** Al-Mustansiriyah Journal of Science, **33(4), 2** pp. 86-91, 2022.
- Saja Makki Attook and Emad Bakr Al-Zangana. **Extension of Size and Degree of (k,r)-Cap in $PG(3,13)$.** Ibn Al-Haitham Journal for Pure and Applied Sciences (**IHJPAS**), 37, **2024. Accepted.**

تطوير المهارات:

Conferences					
	اسم المؤتمر	مكان الانعقاد	الدولة	التاريخ	نوع المشاركة
1	British Postgraduate Model Theory	Leeds University	UK	19-21/01/2011	حضور
2	Two One-Day Colloquia in Combinatorics	London School of Economics and Political Science	UK	18-19/05/2011	حضور
3	Basra Second International Conference of Mathematics and its Applications	Basra University	Iraq	23-24/10/2013	حضور
4	Cimpa-Kurdistan-Iraq Research School, Inverse Problem: Theory and Applications	Salahaddin University	Kurdistan Region/Iraq	5-14/05/2014	حضور
5	Ibn Al-Haitham 1st. International Scientific Conference	Baghdad Univ.	College of Education for Pure Science(IbnHaitham)	13-14/12/2017	حضور

ورش العمل و السمنر					
	اسم الورشة	مكان الانعقاد	الدولة	التاريخ	نوع المشاركة
1	Writing Your Thesis	Sussex University	UK	11/11/2009	Attended
2	Oral Presentation Skills- Presentation Delivery	Sussex University	UK	12/11/2009	Attended

3	Word Processing(word 2007):Using Word to Write your Thesis.	Sussex University	UK	18/11/2009	Attended
4	Introduction to Latex	Sussex University	UK	19/11/2009	Attended
5	Introduction to Unix	Sussex University	UK	01/12/2009	Attended
6	Spreadsheets(Excl 2007): A Step Further 2	Sussex University	UK	16/04/2010	Attended
7	Creating Web Pages With Dreamweaver	Sussex University	UK	10/05/2010	Attended
8	Endnote: Introduction	Sussex University	UK	16/05/2010	Attended
9	Presentation(PowerPoint 2007): A Step Further	Sussex University	UK	24/05/2010	Attended