Professor Dr. Sattar Othman Hasan

MSc. in (**Nuclear** Physics-Gamma **Ray** Spectrum)
PhD. in (**Electromagnetic** Theory- **Communications**)
Physics Department/ Salahaddin University–Erbil
Kurdistan Region

Erbil

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Born in **Suleimani** –Kurdistan Region of Iraq- **1970**

Name	**Sattar Othman Hasan**
Nationality	**Kurdistan** Region of IRAQ
Date of birth	1 / 7 / **1970**
Personal status	Married
Occupation	Lecturer in **Physics** Department
Title	**Professor**
Qualification	**PhD** in **Electromagnetic** Field Theory
General field	**Physics**
Specialization	**Communication** and **Antenna** Design
Office address	**Salahaddin** University-Hawler / College of **Education** / **Physics** Department
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Mobile No.	009647504514637

Academic Qualifications

Qualification (Degree Obtained)	Name and Address of Institution	Years Attended
B.SC. (86.36%)	University of Salahaddin-Hawler	**1991**
M.SC. (77.78%)	University of Salahaddin-Hawler	**1999**
PhD (92.80%)	University of Salahaddin-Hawler	**2006**

Work Experience

Date of Employment From - To	Employing Place	Job Title
2000-2002	Salahaddin University / Education College	Registration unit **Manger**
2002-2003	Salahaddin University / Education College	Deputy of **Dean**
2000-2008	Salahaddin University / Education College	representative of **Teaching** staff
2008-2010	EPU/ **Tourism** Technique Institute	**Dean** of the Institute
2010-2014	EPU/ Erbil **Technology** Institute	**Dean** of the Institute

Scientific Titles

Academic Title	Date
Assist. Lecturer	**14 / 12 / 1999**
Lecturer	**31 / 5 / 2003**
Assist. Professor	**12 / 3 / 2008**
Professor	**11/12/2023**

Teaching Subjects

B. SC.

No.	Subjects	College / Department	Class	Years
1.	**General** Physics	Agriculture/plant protec.	1ST **Class**	1999-2000
2.	**Quantum** Mechanics	Education / Physics	4TH **Class**	2000 to 2002 & 2022 to 2024
3.	**Electromagnetic** Theory	Education / Physics	4TH **Class**	2002-2003 & 2015 to 2018
4.	**Calculus**	Education / Physics	1ST **Class**	2014 to 2016 & 2015 to 2018
5.	Linear **Algebra**	Education / Physics	1ST **Class**	2008-2009
6.	General **Mathematic**	Technology institute	1ST **Class**	2010-2011
7.	Electricity and magnetism Lab.	Education / Physics	1ST **Class**	1993-1994
8.	Adv. **Electricity** & **Magnetism** Lab.	Education / Physics	2ND **Class**	1993 to 2003
9.	Matter **Properties** Lab.	Education / Physics	1ST **Class**	1995-1997
10.	General **Physics** Lab.	Education/ Mathematic	1ST **Class**	1993 to 2000
11.	**Atomic** Lab.	Education / Physics	3RD **Class**	2006-2008
12.	**Illustration** Lab.	Education / Physics	4TH **Class**	2017 to 2023
13.	Adv. **Calculus**	Education / Physics	2ND **Class**	2019 to 2021

Teaching Subjects
M. SC. & PH.D.

No.	Subjects	College / Department	Class
1.	Radio **Wave** Propagation	Education / Physics	**M.Sc.**
2.	**Adv.** Electromagnetic Theory	**Education** & **Science** / Physics	**M.Sc.**
3.	**Antenna** Theory	**Education** & **Science** / Physics	**M.Sc. and Ph.D.**
4.	**Mathematical** Physics	**Education** / Physics	**Ph.D.** + **M.Sc.**
5.	**Numerical** Analysis	**Education** / Physics	**M.Sc.**

Publications

No.	Title(s) and Journal / Proceeding	Author (s)
1	Design of Graphene-Based Tunable Plasmonic Antenna for Multiband Terahertz Application Systems, Plasmonic, November, (**2023**) 102497, **Impact Factor** **3.0** https://doi.org/10.1007/s11468-023-02153-9.	**Sattar O. Hasan**, Saman K. Ezzulddin, Hersh A. Khizir, Muhamad A. Hamad and Bushra A. Rahman
2	Performance Analysis of Plasmonic Nano-antenna Based on Graphene with Different Dielectric Substrate Materials for Optoelectronics Application Plasmonics, September, (**2023**) 102497, **Impact Factor** **3.0** https://doi.org/10.1007/s11468-023-02030-5.	Saman K. Ezaddin **Sattar O. Hasan** Mudhaffer M. Ameen
3	Design and Performance Analysis of Rectangular Microstrip Patch Antennas Using Different Feeding Techniques for 5G Applications *International Journal of Electrical and Computer Engineering Systems, Vol. 14, No. 8,* **2023** **Scopus Cite Score** **0.7**	**Sattar** O. Hasan **Saman** K. Ezaddin **Othman S. Hammed** **Rashad** H. Mahmud
4	Simulation Design of Different Rectangular Horn Antenna Shapes Operating at 28 GHz Using CST and HFSS Techniques. *International Journal on Communications Antenna & Propagation* (IRECAP), Vol. 13, No. 2, April **2023**, DOI: https://doi.org/10.15866/irecap.v12i6.22701 **Scopus Cite score** **2.7**	**Sattar** O. Hasan **Mudhaffer** M. Ameen **Skala** H. Mohammed
5	Design and Simulation of Microstrip Antenna Array Operating at **S**-band for Wireless Communication System *International Journal of Electrical and Computer Engineering Systems, Vol. 14, No. 5,* **2023** **Scopus Cite Score** **1.3**	**Sattar** O. Hasan **Saman** K. Ezaddin **Rashad** H. Mahmud **Mowfaq J. Ahmad**
6	Parametric Study of an Elliptical Microstrip Patch Antenna for **X**-band Applications *Journal of Zankoy Sulaimani Part-A- (Pure and Applied Sciences), Vol.25, No.1, March* **2023**.	**Sattar** O. Hasan
7	Design and Comparison Study of Circular and Elliptical Microstrip Patch Antennas for 5G Applications. *International Journal on Communications Antenna & Propagation* (IRECAP), Vol. 12, N. 6, April **2022**, DOI: https://doi.org/10.15866/irecap.v12i6.22701 **Scopus Cite score** **2.7**	**Sattar** O. Hasan
8	Radiation Performance of Different Triangular Microstrip Patch Antenna Configuration Shapes Operating at 28 GHz. ZANCO Journal of Pure and Applied Sciences, Salahaddin University-Erbil, Vol. 34, No.6, pp. 45-55(**2022**), DOI: : http://dx.doi.org/10.21271/ZJPAS.34.6.6	**Sattar** O. Hasan **Bushra** A. Rahman

No.	Title(s) and Journal / Proceeding	Author (s)
9	Simulation Design of Low-Profile Equilateral Triangle Microstrip Patch Antenna Operating at 28 GHz *International Journal on Communications Antenna & Propagation* (IRECAP), Vol. 12, N. 2, April 2022, https://doi.org/10.15866/irecap.v12i2.21964 **Scopus Cite score** 2.7	Sattar O. Hasan Bushra A. Rahman
10	Microstrip patch antenna design, simulation and fabrication for 5G applications *Simulation Modelling Practice and Theory*, January, 116 (2022) 102497, https://doi.org/10.1016/j.simpat.2022.102497 **Impact Factor** 4.199	Sattar O. Hasan Mudhaffer M. Ameen Saman K. Ezaddin
11	Optimization of rectangular microstrip antenna patch parameters to operate with high radiation performances for 5G applications *AIP Conference Proceedings **2386**, 070002 (2022); Published Online*: 11 January 2022 https://doi.org/10.1063/5.0066800 **Scopus Cite Score** 0.7	Sattar O. Hasan Mudhaffer M. Ameen Saman K. Ezaddin
12	Optimization of Rectangular Microstrip Antenna Substrate Parameters to Operate at High Radiation Performances for 5G Applications *Advances in Mechanics*, Volume 9, Issue 2, Page 273-286, 2021, https://www.researchgate .net/publication/357859141. **Scopus Cite Score** 2.9	Sattar O. Hasan Mudhaffer M. Ameen Saman K. Ezaddin
13	Comparison Between Measured and Empirically Predicted Radio Wave Pathloss in Rural Environment ZANCO Journal of Pure and Applied Sciences, Salahaddin University-Erbil, ZJPAS (2021), DOI: http://dx.doi.org/10.21271/zjpas	Sattar O. Hasan Sevan S. Abdulla
14	A Low-Profile Antenna Based on Single-Layer Metasurface for Ku-Band Applications *International Journal of Antennas and Propagation*, 2020, Article ID 8813951, 8 pages, https://doi.org/10.1155/2020/881395 . **Scopus Cite score** 2.7	Yadgar I. Abdulkarim, Halgurd N. Awl, Fahmi F. Muharrem K. Rashad H. Sattar O. Hasan, Ömer Işık, Heng Luo **Shengxiang Huang**
15	Path Loss Estimation for Some Korek-Telecom Sites Operating at (1.8) GHz and (2.1) GHz for Urban and Suburban Area in Erbil City *Advances in Science, Technology and Engineering Systems Journal* Vol. 5, No. 5, 869-875 (2020), https://doi.org/10.25046/aj0505106. **Scopus Cite Score** 0.7	Sattar O. Hasan Sevan S. Abdulla
16	Design and Simulation of Microstrip Patch Antenna for 5G Application using CST Studio *International Journal of Advanced Science and Technology* Vol. 29, No. 04, pp. 7193 – 7205, 2020, https://www.researchgate.net/publication/357859126 **Scopus Cite Score** 0.1	Sattar O. Hasan Mudhaffer M. Ameen Saman K. Ezaddin
17	Optimization of 90 and120 dB- Shielding Effectiveness for Plane Electromagnetic Waves at Center Frequencies (3 and 3000) MHz *ZANCO Journal of Pure and Applied Sciences, Salahaddin University-Erbil*, ZJPAS (2016) **28 (2)**; 564-573, https://www.researchgate.net/publication/324018452	Sattar O. Hasan Glara F. Hasan
18	Radiation characteristics of the Axial –mode helical antennas operating at the X-band frequencies *Journal of Pure and Applied Sciences, Salahaddin University*- Hawler, Vol.24, No.1, (2012).	Sattar O. Hasan Rashad A. Hasan
19	Shielding Effectiveness via Electric and Magnetic Fields *Journal of Dohuk University, Scientific and Academic*, Vol.10, No.2, pp. 104-111, (2007).	Sattar **O. Hasan**
20	Evaluation of Electromagnetic Shielding Effectiveness for Various Types and Thickness of Materials at Different Frequencies *Journal of Pure and Applied Sciences, Salahaddin University*- Hawler, Vol.19, No.3, pp. 81-93, December (2007).	Sattar O. Hasan
21	Parametric Study of the Rectangular Microstrip Antenna Using Cavity Model *Engineering and Development Journal, Al-Mustansiriya University- Baghdad*, Vol.10, No.2, (2006).	Sattar O. Hasan Jamal W. Salman

No.	Title(s) and Journal / Proceeding	Author (s)
22	Effect of Loss Tangent, Dielectric Substrate Permittivity and Thickness on the Performance of Circular Microstrip Antennas *Engineering and Development Journal, Al-Mustansiriya University*- Baghdad, Vol.10, No.1, (2006).	**Sattar** O. Hasan **Jamal** W. Salman
23	Multipole Mixing Ratios for Gamma-Transition Using Constant Statistical Tensor Method for $^{92}_{40}Zr(n,n'\gamma)$ *Journal of Pure and Applied Sciences, Salahaddin University*- Hawler, Vol.16, No.1, (2004).	**Sattar** O. Hasan
24	Study of Some Nuclear properties of Isotopes $^{96\text{-}108}$Ru, $^{102\text{-}116}$Pd, $^{110\text{-}130}$Xe, $^{166\text{-}180}$HF *Journal of Pure and Applied Sciences, Salahaddin University- Hawler*, Vol.14, No.2, (2004).	**Sattar** O. Hasan **Azad** M. Karem
25	The Background Function Effects on the Analysis of Gamma-Ray Spectrum College of Science, University of Salahaddin (1999), M.SC. Thesis	**Sattar** O. Hasan M.SC. Thesis
26	Analysis and Design of Compact Microstrip Antenna Using Cavity Model College of Science, University of Salahaddin (2006), PHD Thesis	**Sattar** O. Hasan PHD Thesis

Supervision of Master Degree

No.	Student Name	Thesis Title	Year
1	**Rashad** Hasan Mahmud	Design Study of the Axial-Mode Helical Antennas Operating in the X-Band Frequency	**2010**
2	**Glara** Fuad Hasan	Theoretical Analysis of the Oblique Incidence Plane Electromagnetic Wave Shielding Effectiveness at Frequency Bands of HF, VHF and UHF	**2014**
3	**Sevan** Siyyah Abdullah	Comparison between Different Radio Wave Propagation Path Loss Predictions Models	**2020**
4	**Bushra** Adnan Rahman	Analysis of Various Triangular Microstrip Antennas Shapes using Different Analytical and Simulation Techniques	**2023**

Supervision of PhD Degree

No.	Student Name	Thesis Title	Year
1	Saman K. Ezaddin	Comparative Study between Different MPA Shape Configurations Operating at 5G Frequency	**2022**
2	Skala Hatem Mohammed	Design Analysis of Different Aperture Antennas Configuration Shapes Operating at 28 GHz and 38 GHz	**2024**

➢ Participating in Discussion Committee of MSc. and PhD. Students

1- **Member** in (12) **Master** students discussion committee.
2- **Member** in (6) **Ph.D**. Students discussion committee.
3- **Supervisor** of (4) **Master** Students.
4- **Supervisor** of (2) **Ph.D.** Students.

Supervision of (B.Sc.) Undergraduate Student Research Project

No.	Student Name	Project Title	Year
1	Rabar R. Tofiq	Natural **Gamma** Spectrum Analysis Behaviour	2000-2001
2	Talar F. Najm	Formation of **Liquid** Drop Model	2003-2004
3	Azhen A. Muhamadameen	Propagation of **Electromagnetic** waves in Different Mediums	2004-2005
4	**Sana** L. Nahmatulla	Historical Review of the Foundation of **Electricity** and **magnetism** Phenomenon	2006-2007
5	Halmat J. Hassan	Characteristic of **EMW** in Different Conducting Medium	2007-2008
6	Chnar **A.** Ismail	**Surface** Tension and **Viscosity** of Water as a Function of **Temperature** and with Different Soluble Concentration	2016-2017
7	Kazhaw K. Abdulla		
8	Shanaz M. Othman		
9	Dlgash M. Hussen	Calculation of **Electric** Field Shielding Effectiveness at [10 Hz to 10 GHz] Operation Frequencies	2017-2018
10	Rozhen M. Mhamad	Evaluation of **Magnetic** Field Shielding Effectiveness at [10 Hz to 10 GHz] Operation Frequencies	2017-2018
11	Sarkawt A. Abdulsamad	Computation of **Plane** Electromagnetic Wave Shielding Effectiveness	2017-2018
12	Zainab H. Omer	Optimization of **Radar** Parameters to Detecting Targets at a Distance of **(200)Km**	2018-2019
13	Shazad S. Hasan	Effect of Various **Radar** Parameters on the Performance of Radar Detection Ranges	2018-2019
14	Banazer M. Mahmood	Estimation of Radio Wave **Pathloss** in **Urban** and **Sub-Urban** Environments Using Different Empirical Models	2020-2021
15	Banda M. Haidar	Radio Wave Propagation **Pathloss** Computation in **Different Environments** Using Stanford University Interion Model	2020-2021
16	Trefa Q. Qader	Radio Wave Propagation **Pathloss** Prediction in Different Environments Using **COST-231 Wolfish-Ikegami Model**	2020-2021
17	Asmaa N. Omer	Comparison Between **End-fire** and **Broadside** Array Antenna Radiation Pattern Parameters	2021-2022
18	Aso N. Saeed	Effect of **Various** Parameters on the Radiation Pattern of **Broadside** Array	2021-2022
19	Rayan M. Hasan	Effect of **Various** Parameters on the Radiation Pattern of the **End-Fire** Antenna Arrays	2021-2022
20	Youns Muhammad Auday	Computation of **Reflection** and **Transmission** Coefficient for **Parallel** polarized **EMW** between different Dielectric Mediums	2022-2023
21	Rayan Nareman Abdulhameed	**Perpendicular** Polarized **EMW Reflection** and **Transmission** Coefficient Calculation at the Interface of Dielectric Mediums	2022-2023
22	Rawand Rahman Husen	Antenna Types with Their Applications	2023-2024
23	Deren Sattar Salih	Antenna Types with Their Applications	2023-2024
24			
25			