

**DR. ENG. REFAT T. HUSSAIN**  
**ASSIST. PROF.**



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<https://www.researchgate.net/profile/Refat-Hussain>

HEAD OF COMMUNICATION ENG. DEPARTEMENT  
**EXPERIENCE**

Institution	Rank	Title	When	Full Time/Part Time
Electrical & Electronic Eng. Dept./ MEC	Dr.	Staff member	1990 -1995	Full Time
Electrical & Electronic Eng. Dept./ MEC	Assist. Prof. Dr.	Staff member	1995 - 2003	Full Time
Electrical Eng. Dept./ UOT	Assist. Prof. Dr.	Staff member	2003 – 2006	Full Time
Electrical Eng. Dept./ UOT	Assist. Prof. Dr.	Head of Com. Eng. Branch	2006 – 2008	Full Time
Electrical Eng. Dept./ UOT	Assist. Prof. Dr.	Staff member	2008 - 2010	Full Time
Optical Electronic Eng. Dept./UOT	Assist. Prof. Dr.	Staff member	2010 - 2013	Full Time
Electrical Eng. Dept./ UOT	Assist. Prof. Dr.	Staff member	2013 - 2014	Full Time
Communication Eng. Dept./UOT	Assist. Prof. Dr.	Staff member	2014 - 2020	Full Time
Computer Eng. Technology/AUC	Assist. Prof. Dr.	Head of Dept.	2021-2022	Full Time

**Current membership in professional organizations:**

Iraqi Engineers Association - Consultant Rank

**Service activities (within and outside of the institution):**

- Supervision of undergraduate students Training of and supervising the student's projects
- Chairman of a performance evaluation committee for one of higher education university
- Chairman or member of the curricula preparation committees for many engineering colleges and departments of under and post - graduate studies

- Cooperation with Faculty of Engineering - University of sedum - in the field of under and post - graduate studies
- Cooperation with the Department of Electronic & communication Engineering / Faculty of Engineering - University of Baghdad - in the field of under and post - graduate studies
- Cooperation with the Department of Electronic & communication Engineering / Faculty of Engineering - University of Baghdad - in the field of under and post - graduate studies
- Cooperation with the Department of Electrical Engineering / Faculty of Engineering – Mustansiriyah University - in the field of under and post graduate studies

**Supervision on the Ph.D. Desertion = 7 students**

**Supervision on the M.Sc. Thesis = more than 30 student**

## EDUCATION

Name	<b>Assist. Prof. Refat T. Hussain (Ph.D.)</b>		
Education:			
Degree	Discipline	Institution	Year
<b>Ph.D.</b>	<b>Microwave Image Processing System</b>	<b>University of Strathclyde - UK</b>	<b>1990</b>
<b>M.Sc.</b>	<b>Telecommunication Systems</b>	<b>Cranfield University - UK</b>	<b>1987</b>
<b>B.Sc.</b>	<b>Electronic &amp; Electrical Engineering</b>	<b>Military Engineering College - IRAQ</b>	<b>1981</b>

## SKILLS

- Microwave Image System
- Image Steganography System
- Fractal Antenna Design.

## PUBLICATIONS

- BOOK [DESIGN AND CHARACTERIZATION OF THZ ANTENNA USING GRAPHENE-BASED AMC; ISBN-13: 978-333007296-1; LAP LAMBERT ACADEMIC PUBLISHING; 2022]
- "Application of 2D Migration Algorithms to Ground Probing Radar", ICASSP88, April 11-14, 1988, New York City, USA, 41.M10.6. R.T. Hussein, W. Sandham, and R. Chapman.
- "Comparison Between Image Processing Methodologies Used in the GPR", Proc. Of the MCE 2nd Eng. Con. 1994, PP. EE2- 11 – 16. Dr. R.T. Hussain.
- "EM Field Properties of Antennas for Transmission into a Lossy Half-Space Media", JSU, Vol. 3(2), Dec 1999, PP. 95-111, Assist. Prof. Dr. R.T. Hussain.

- "Optimum Costas Radar-Waveform Design", JSU, Vol. 5(1), Nov 2001, PP. 32-45. Emad Shehab Ahmed (M.Sc.) & Assist. Prof. Dr. R.T. Hussain.
- "Optimum FM Modulation Waveforms Design for Dual-Channel Transmission Pulse Radar", IJCCCE, Vol. 2(2), 2001, PP. 17-24. Emad Shehab Ahmed (M.Sc.) & Assist. Prof. Dr. R.T. Hussain.
- "(8-12) m wavelength atmospheric transmission modeled to restored thematic images", IJCCCE, Vol.2(3), 2001, PP.79-89. Eng. Anwaar Abdul Satar (M.Sc.) & Assist. Prof. Dr. R.T. Hussain.
- "Optimum Approach of DOA for Mono-pulse Radar Systems with Modern Neural Network Algorithms", JSU, Vol. 6(3), 2002. PP. 61-74, Assist. Prof. Dr. R.T. Hussain & Eng. Yaseen Naser Jrn.
- "Design and Implementation of Broad-band Annual Ring Micro-Strip Patch Antenna with Hybrid Polarization", JSU, Vol. 6(3), 2002. PP. 83-96. Assist. Prof. Dr. R.T. Hussain & Eng. Hasan Kasim Abbas.
- "Optimum Design and Implementation of Helicon Antenna", JSU, Vol. 6(3), 2002. PP. 25 - 34. Assist. Prof. Dr. R.T. Hussain & Eng. Yasser Saa'di Mohamed.
- "3D Visualization for Embedded Target in Media", Proc. Of the M2USIC 2005, TS11, PP. 21 – 24. Assist. Prof. Dr. R.T. Hussain, Kitara K. Abdul Rahman.
- "3D combine fractal dipole wire antenna", IJCCCE Vol. 7, No.2, 2007, PP.35-42. Assist. Prof. Dr. R.T. Hussain.
- "Compact Size Design with low Side Lobes of Fractal Linear array antenna", IJCCCE VOL.9, NO.1, 2009, PP.1-12. Assist. Prof. Dr. R.T. Hussain & Eng. F. J. Jibrael.
- "Comparison of the radiation pattern of fractal and conventional linear array antenna", Progress in Electromagnetic Research Letters, Vol. 4, pp.183-190, 2008. Assist. Prof. Dr. R.T. Hussain & Eng. F. J. Jibrael.
- "Low complexity high data rate transmit diversity block code (TDBC)", Zanco, Journal of Pure and Applied Sciences/ Salahuddin University-Hawler, Vol. 21, No.3, 2009, PP.65-74. Assist. Prof. Dr. R.T. Hussein & Dr. Thuraya M. Al-Qaradaghi.
- "Automatic extracted object technique for contrast enhancement medical images", IJCCCE, VOL.9, NO.1, 2009, Assist. Prof. Dr. R.T. Hussein & Atheer Jabbar Mansor.
- "Modified CA-CFAR Radar detection for multiple and clutter edge situations",  
 • المؤتمر العلمي الحادي عشر لهيئة التعليم التقني ، البحوث الهندسية، 2009، 22-24 آذار، 489 – 502 ،  
 أم.د. رفعت طالب حسين و م.م. أوس باسل حامد.
- "Imperceptible Image Steganography system with Turbo Code and Wavelet Based Fusion", First Computer sciences Conference, 3rd -4th Feb. 2010, U.O.T., Baghdad, Iraq. Assist. Prof. Dr. R.T. Hussein & Awatif Ali Jafar (M.Sc.).
- "New Trend of space-frequency block code-OFDM", (JZS) Journal of Zankoy suliminea, 2010, 13(1) Part A, pp49-58. Assist. Prof. Dr. R.T. Hussein & Dr. Thuraya M. Al-Qaradaghi.
- "Simulation of hybrid system with (SFBC-STBC OFDM) in wireless communication"
- "Image Steganography algorithm based on DWT and Turbo coding"
- "Cantor fractal linear antenna array with Koch fractal elements", IJCCCE, Vol.1, No.1, 2010, Assist. Prof. Dr. R.T. Hussain & Eng. Mohannad Ahmad.
- "Novel Security Image Steganography Based On DWT and Pseudorandom Sequence", Journal of Engineering and Development, Vol. 14, No. 1, April (2010), Assist. Prof. Dr. R.T. Hussein & Awatif A. Jafar (M.Sc.).



- “A Wideband Hybrid Plasmonic Fractal Patch Nano-antenna”,
- “Design and Performance Investigation of Tunable UWB THZ Antenna Based on Graphene Fractal Artificial Magnetic Conductor”, Volume 6, Issue 9, Sep 2015, pp. 39-47, Article ID: IJECET\_06\_09\_005.
- “A Modified Wideband Hybrid Plasmonic Fractal Patch Nano-antenna”, International Conf. on Laser & advanced Materials, 2014.
- “UWB Single Port Log Periodic Toothed Terahertz Antenna Design Based on Graphene Artificial Magnetic Conductor”, Modern Applied Science; Vol. 11, No. 3; 2017.
- “(0.1-10) THZ Single Port Log Periodic Antenna Design Based on Hilbert Graphene Artificial Magnetic Conductor”, ARPN Journal of Engineering and Applied Sciences, Vol. 12, No. 4, Feb. 2017.
- "Zigzag Edges Toothed Log Periodic Terahertz Antenna Design Based on Graphene Hilbert Curve AMC", 2018 Third Scientific Conference of Electrical Engineering (SCEE) 19-20 Dec 2018, DOI: 10.1109/SCEE 2018, IEEE *Xplore*; April 2019, Pages 140 – 143.
- “Wideband improvement for hybrid plasmonic fractal patch nanoantenna”, Bulletin of Electrical Engineering and Informatics, Vol. 11, No. 5, October 2022, pp. 2672~2678, ISSN: 2302-9285, DOI: 10.11591/eei.v11i5.4129.
- And more....

### **AWARDS, THANKS & APPRECIATION, AND PATENTS IF ANY**

- Appreciation (Excellent – very good – good )



[HTTPS://WWW.FACEBOOK.COM/PEOPLE/%D8%B1%D9%81%D8%B9%D8%AA-%D8%AD%D8%B3%D9%8A%D9%86/PFBID02SSTUMEFSCNEMLBTYSMPOIA1RXBFTMFZPKWZWS7XWGGST2KERYK87A1PG8GBAUNPBL/?MIBEXTID=ZBWKWL](https://www.facebook.com/people/%D8%B1%D9%81%D8%B9%D8%AA-%D8%AD%D8%B3%D9%8A%D9%86/PFBID02SSTUMEFSCNEMLBTYSMPOIA1RXBFTMFZPKWZWS7XWGGST2KERYK87A1PG8GBAUNPBL/?MIBEXTID=ZBWKWL)



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