

CURRICULUM VITAE: Prof. Dr. ABDULHADI M. AL-JANABI

Personal information:

Name: Abdulhadi M. Al-Janabi

Date of Birth: 1.9.1963

Religion: Muslim

Nationality : Iraqi

Martial statues: Married

Specialization: Laser physics

Scientific Degree: Ph.D.

Current position : Professor in the institute of laser for postgraduate studies, University of Baghdad-Iraq

Work Address: Institute of laser for postgraduate studies-university of Baghdad. Jadiriah, P.O. Box : 47314 ,Baghdad, IRAQ

e-mail : hadi.janabi@ilps.uobaghdad.edu.iq

mobile : 00964 7803414697

Current employer : University of Baghdad

First, Education :

Degree science	University	College/Dept.	Date of graduation
B.Sc.	University of Mosul-Iraq	College of science-Physics	1981
M.Sc.	Univ. of Technology-Iraq	Applied sciences-Applied Physics	1985
Ph.D.	Indian institute of technology, Delhi-India	Center for energy studies Applied Physics-Laser	1993

Post.doc	Vienna university of Technology-Austria	Faculty of electrical engineering and information technology- Institute of photonics	2003-2004
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Title of Master Thesis

Effect of plasma on machining (hole drilling) by laser

Title of Ph.D. thesis

Wave-wave interactions studies at high powers of electromagnetic waves and electron beams in plasmas.

Second, Career:

No	Career	Work place	From –To
1	<i>Lecturer</i>	<i>Institute of laser for postgraduate studies-University of Baghdad</i>	<i>1995-1998</i>
2	<i>Asst .Prof.</i>	<i>Institute of laser for postgraduate studies,University of Baghdad</i>	<i>1998-2005</i>
3	<i>Head, Industrial and Engineering applications Dept.</i>	<i>Institute of laser for postgraduate studies,University of Baghdad</i>	<i>2001-2003</i>
4	<i>Research assistant</i>	<i>Institute of Photonics, Vienna university of Technology, Austria</i>	<i>2003-2004</i>
5	<i>Professor</i>	<i>Institute of laser for postgraduate studies, University of Baghdad</i>	<i>2005-</i>

6	<i>Professor and Dean(Member Of the university of Baghdad Council)</i>	<i>Institute of laser for postgraduate studies, University of Baghdad</i>	2014-
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Third, Research interest :

mainly in the field of laser physics and technology , Optoelectronics , Nano photonics , fiber optics, Photonics applications; metamaterial fabrication and characterization ; photonic crystal fiber, photonic crystal fiber sensors and Fiber lasers .

Fourth, University teaching and learning

Under graduate courses: General physics . plasma physics and laser physics.

Postgraduate courses : Laser , Laser applications ,Laser material interaction ,advanced laser physics , plasma physics , Laser Technology I, Laser Technology II , Metamaterials , Ultrashort laser pulse , Photonic Crystal Fiber , Trends in fiber lasers.

Fifth, Thesis which was supervised by :

40 M.Sc. and Ph.D. theses

A book co-authored:

OML Sheath Potential Ratio in a Plasma Quadrupole: Orbital Motion Limit (OML) -Sheath Potential Ratio in a Plasma Quadrupole.

by :Hassan Al-Battat, M. Sanduk and A. Al-Janabi (Jul 27, 2012)

- **Publisher:** LAP LAMBERT Academic Publishing (July 27, 2012)
- **Language:** English
- **ISBN-10:** 3659195669
- **ISBN-13:** 978-3659195662

■ Sixth, Scientific Activities:

- 1-Member, Optical Society of America (OSA).**
- 2- Head, scientific committee, Institute of Laser for postgraduate studies- University of Baghdad.**
- 3-Editorial board member, Iraqi journal of laser.**
- 4-Head , Institute of laser consultant bureau.(university of Baghdad).**
- 5-Reviewer with optical society of America journals (Optics letters, Applied optics, Optics express, Optical materials express)./ + Optics and laser technology journal (ELSEVIER)**
- 6-Reviewer Chinese optics letters.**
- 7-Head, Scientific promotion committee.**

Seventh, A: Research Publications in Refereed Journal :

Note: I publish under the names : A.Hadi Al-Janabi , A H Al-Janabi OR Abdul Hadi M. Al-Janabi (some journals ask for full name) .

1-"Ultrashort pulse generation with an erbium-doped fiber laser ring cavity based on a copper oxide saturable absorber"

Sinan Abdulhameed Sadeq, Sulaiman Wadi Harun, and **Abdul Hadi Al-Janabi**

Applied Optics 57(18), 5150-5160 (2018)

<https://doi.org/10.1364/AO.57.005180>

2-Copper oxide (CuO) thin film nanoparticles as a new saturable absorber for passively switched erbium doped fiber laser.

Sinan Abdulhameed Sadeqa, Sarah Kadhim Al-Hayali, Sulaiman Wadi Harunc , **Abdulhadi Al-Janabia**

Results in Physics 10 (2018) 264–269 (2018).

<https://doi.org/10.1016/j.rinp.2018.06.006>

3- "Triple-wavelength passively Q-switched ytterbium-doped fiber laser using zinc oxide nanoparticles film as a saturable absorber."

SARAH KADHIM MOHSIN AL-HAYALI1, AND **ABDUL HADI AL-JANABI**

Journal of Modern Optics 65(13) 15591564 (2018)

<https://doi.org/10.1080/09500340.2018.1455922>

4--"Dual-wavelength passively Q-switched ytterbium-doped fiber laser using Fe₃O₄-nanoparticle saturable absorber and intracavity polarization"

S K M Al-Hayali and **A H Al-Janabi**

Laser Physics 28, 035103 (2018).

<https://doi.org/10.1088/1555-6611/aa9d6c>

5-" All fiber Chemical liquids Refractive index sensor based on Multimode interference. "

S. A. Mohammed and **Abdul H. Al-Janabi**

Iraqi J. Laser ,Part A, Vol. 27 ,pp: 33-39 (2018).

6- "Aluminum oxide nanoparticles saturable absorber for C-band passively Q-switched fiber laser."

Sarah Kadhim Mohsen Al-Hayali ,Dunya Zeki Mohammed, Wurood Abdulkhaliq Khalil and **Abdul Hadi Al-Janabi**

Applied Optics 56 (16) 4720-4726 (2017).

<https://doi.org/10.1364/AO.56.004720>

7- "High-sensitivity sucrose erbium-doped fiber ring laser sensor,"

Wurood Abdulkhaleq Khaleel and **Abdul Hadi M. Al-Janabi**

Optical Engineering 56 (2), 026116-026116 (2017).

[DOI: [10.1117/1.OE.56.2.026116](https://doi.org/10.1117/1.OE.56.2.026116)]

8-"Tunable Q-switched erbium doped fiber laser based on metal transition oxide saturable absorber and refractive index characteristic of multimode interference effect."

D.Z. Mohammeda, Wurood Abdulkhaleq Khaleel , **A.H. Al-Janabi**

Optics and Laser Technology 97 ,106–110(2017).

<http://dx.doi.org/10.1016/j.optlastec.2017.06.022>

9-Dual-Wavelength Passively Q-Switched Ytterbium-Doped Fiber Laser Based on Aluminum Oxide Nanoparticle Saturable Absorbers *

S. K. M. Al-Hayali, S. Selleri, **A. H. Al-Janabi**

Chinese Physics Letters 34 (11), 114201 (2017).

DOI: 10.1088/0256-307X/34/11/114201

10-"Erbium-doped fiber ring laser with wavelength selective filter based on nonlinear photonic crystal fiber Mach–Zehnder interferometer"

W A Khaleel and **A H Al-Janabi**

Laser Physics 27, 105104 (8pp) (2017).

<https://doi.org/10.1088/1555-6611/aa8287>

11- "Investigation of Plateau–Rayleigh Instability in Drawn Metal–Polymer Composite Fibers for Metamaterials Fabrication "

Ahmed Alchalaby, Richard Lwin, **A. Hadi Al-Janabi**, Patrick W. Trimby, Simon C. Fleming, Boris T. Kuhlmeiy, and Alexander Argyros

Journal of Lightwave Technology 34 (9), 2198-2205 ,2016.

Digital Object Identifier 10.1109/JLT.2015.2511022

12-"Passively Q-switched erbium doped fiber laser based on double walled carbon nanotubes-polyvinyl alcohol saturable absorber."

DZ Mohammed, **AH Al-Janabi**

Laser Physics 26 (11), 115108 , 2016.

[doi:10.1088/1054-660X/26/11/115108](https://doi.org/10.1088/1054-660X/26/11/115108)

13-"DMSO-based photonic crystal fiber sensor with enhanced sensitivity".

Ali H. abdulhadi, Sun-jie Qiu, **A.Hadi Al-Janabi**

Chinese Optics Letters 12 (2), 020603-020603 , 2014 .

doi: 10.3788/COL201412.020603

14-"Fusion Splicing for a Large Mode Area Photonic Crystal Fiber with Conventional Single Mode Fiber"

Shaymaa N. Ismail Hanan J. Taher and **Abdul Hadi Al-Janabi**

Iraqi J. Laser, Part A, Vol. 13, pp. 9-17 (2014)

15-"Refractive Index Scaling in Hollow Core Photonic Crystal Fiber."

Dalya H. Abbas and **Abdul Hadi M. Al-Janabi**

Iraqi J. Laser, Part A, Vol.12, pp. 15-25 (2013)

16-"Indefinite Media Based on Wire Array Metamaterials for the THz and Mid-IR"

Osama T. Naman , Matthew R. New-Tolley , Richard Lwin , Alessandro Tuniz ,

A. Hadi Al-Janabi , Inna Karatchevtseva , Simon C. Fleming , Boris T. Kuhlmeiy , and Alexander Argyros

Advanced Optical Materials 1 (12), 971-977 , 2013

DOI: 10.1002/adom.201300402

17-"THz generation by the beating of two high intense laser beams"

RABEA Q. NAFIL¹, MONIKA SINGH² , A. H. AL-JANABI¹

and R. P. SHARMA²

Journal of Plasma Physics 79 (05), 657-660 , 2013 .

doi:10.1017/S0022377813000251

18-"Terahertz generation by the high intense laser beam."

MUNTHEER B. HASSAN, A. H. ALJANABI, MONIKA SINGH and R. P. SHARMA

Journal of Plasma Physics / Volume 78 / Issue 05 / October 2012, pp 553 558 (2012).

DOI: 10.1017/S0022377812000323, Published online:

19-"Efficient transportation of Nd laser beam through photonic crystal fiber."

A H Al-Janabi , H J Taher and S M Laftah

Indian Journal of Physics 85 (8), 1299-1307 ,2011 .

20-"Transmission bands shift in a liquid filled hollow core photonic crystal fiber"

A.H. AL-JANABI , S.M. LAFTAH , H.J. TAHER and T.S. MANSUOR

Atti della Fondazione Giorgio Ronchi, 301 , 2009.

21-"Novel applications of short and ultra-short pulses"

M. Straßl, H. Kopecek, M. Weinrotter, A. Bächer, A.H. Al-Janabi, V. Wiegner, E. Wintner

Applied surface science 247 (1), 561-570 ,2005.

doi:10.1016/j.apsusc.2005.01.174

22-"Transportation of nanosecond laser pulses by hollow core photonic crystal fiber for laser ignition."

A.H. Al-Janabi

Laser Physics Letters 2 (11), 529(2005).

/ DOI 10.1002/lapl.200510044

23-"High power laser transmission through photonic band gap fibers"

A.H. Al-Janabi and E. Wintner

Laser Physics Letters 2 (3), 137 ,2005 .

DOI 10.1002/lapl.200410147

24-"Microdrop size measurements in a mixing unit using a laser technique."

A. Hadi M. Al-Janabi, Majid S. Radha'a and Ali Z. Asker

Iraqi J. Laser, Part A, Vol. 2, pp37-14, 2003.

25-"Study of laser propagation parameters in underdense plasma region using a two dimensional simulation code."

A. Hadi Al-Janabi , Mazin M. Elias and M. Sh. Mahmood

Iraqi J. Laser, Part A, Vol. 1, No. 1, pp. 31-37 (2002).

26-"Velocity and kinetic energy measurements for the plasma ions produced by Nd:glass laser".

A H Al-Janabi

Iraqi J.Sci.43C,No.1,p:113, 2002.

27-"Design and construction of a high energy Nd:glass laser system"

A H Al-Janabi

J. of College of Education for Women Vol.13(1),2002

28-"The conducting wall effect on single probe measurements",

M.I.Sanduk, **A.M.Al-Janabi**, and Hassan al-Battat

Indian J.Phys.75B(2),123-128 , 2001.

29-"Bohm diffusion equation in quadrupole."

M.I.Sanduk, **A.M.Al-Janabi**, and T.A.Abu- Shemala

Indian J.Phys. 73B(3), 509-514 , 1999.

30-"The influence of self generated magnetic field on the growth rate of FRS instability in laser produced plasma."

A H Al-Janabi

Iraqi J.Sci , 1998

31-"Study of the forward Raman scattering instability in laser produced plasma"

A.Saber and **A.H. Al-Janabi**

Iraqi J.Sci,Vol.37,No.1,223-233 ,1996.

32-"Microwelding of different types of wires using laser beam".

A.H. Al-Janabi and E.G.Yousif

Journal of science and technology, 1995.

33-"Generation of cyclotron harmonic waves in the ionospheric modification experiments"

A. Hadi Al. Janabi, Atul Kumar, R. P. Sharma, and Y. K. Tripathi

IEEE TRANSACTIONS ON PLASMA SCIENCE, Vol.22, No.1,pp.65-70 , 1994 .

34"-Parametric excitation of electrostatic whistler waves by electron plasma waves"

RP Sharma, YK Tripathi, **AH Al Janabi**, RW Boswell

Journal of Geophysical Research: Space Physics (1978–2012) 97 (A4), 4275-4281,1992.

35-"Some parametric instabilities of fast magnetosonic wave near the ion cyclotron harmonic frequencies"

RP Sharma, A Kumar, **A Hadi Al. Janabi**, R Kumar

Physics of Fluids B: Plasma Physics 4 (1), 79-85,1992.

36-"Parametric decay instabilities of the fast wave in the lower hybrid frequency regime."

Atul Kumar, R. P. Sharma, Y.K. Tripathi, and **A. Hadi Al-Janabi**

Plasma Science, IEEE Transactions on 19 (4), 590-597 , 1991 .

B: Publications in national and international conferences:

1-The effect of Nd:YAG laser in spot welding

LASER4 international conference, Paris,17-18 march 1988

2-Effect of plasma on machining (hole drilling) by laser

Jordanian international conference of mechanical engineering ,JIMEC'97 , 1997.

3-Laser microwelding of mild steel wires

7th International conference on Production engineering, Design and control. 13-15 Feb 2001, Alexandria univ. Egypt

4-Effect of magnetic field on the plasma generated by Nd:glass laser.

8th technology conference for laser and opto-electronics. Univ. of technology, IRAQ , 2002.

5-Transportation of nanosecond laser pulses by hollow core photonic crystal fibers

Presentation: 54. Jahrestagung der Österreichischen Physikalischen Gesellschaft, Linz, Austria; 09-28-2004.

6-Photonik crystal fibers for practical applications

Presentation: 13th International Laser Physics Workshop, Trieste, Italy; 07-12-2004 - 07-16-2004.

7-Gaussian laser beam propagation through evacuated hollow core photonic crystal fiber

Proceedings of 2005 7th International Conference Transparent Optical Networks, 2005. Volume 1 , pp 121-124. IEEE

8-F-QEO1: Transportation of nanosecond laser pulses by hollow core photonic crystal fibers , 2005.

9-Laser ignition of engines: multipoint, fiber delivery, and diagnostics

21st European Mask and Lithography Conference, 88-99 , 2005 .

10-Transportation of Gaussian pulses via photonic bandgap fiber

ICTON, Spain, 2006.

11-Effect of temperature variation on the performance of liquid-filled photonic bandgap

META10, 2010.

12-Measurement of Nd:YAG laser breakdown threshold in gases.

6th mediterranean symposium on laser induced plasma spectroscopy 11-15 september 2011

13-Wire arrays fabricated by drawing for THz and IR metamaterials

2012 37th International Conference on Infrared, Millimeter, and Terahertz . ,2012 ..

14-Fiber-based metal-polymer composites for THz and IR metamaterials.

ETOPIM9 Marseille, France , 2012

15-Metal Wire Arrays Fabricated by Drawing for THz and IR Metamaterials (invited talk)

IRMMW-THz, Wollongong, Australia 2012

16-Comparison of thermally-induced single-mode regime changes in Yb-doped large mode area photonic crystal fibers

SPIE Optics+ Optoelectronics, 87750N-87750N-7 2013 .

17-PNA-modified photonic crystal fibers for DNA detection

CLEO/ EUROPE-IQEC 2013 :12-16 May 2013, Munich Germany ;Conference on lasers and electro-optics – international quantum electronics conference

18-Photonic platform based on functionalized microstructured fiber for DNA detection
Second Workshop:Optical Biosensors and Biophotonics Group of the SIOF Sestri/Italy 2013

19-"Nanoparticle enhanced fiber platform for biosensing applications," *EOS Topical Meetings, 12-14 September 2013, Capri, Italy*

20-Bio-functionalized hollow core photonic crystal fibers for label-free DNA detection
Proc. SPIE 8938, Optical Fibers and Sensors for Medical Diagnostics and Treatment Applications XIV, 89380T (February 20, 2014); doi:10.1117/12.2039665

21-Fiber based biosensor for DNA detection
XXI national meeting of electromagnetism ,Sep. 2016 ,Parma ,Italy.

22- Stability Evaluation of Passively Q-switched Erbium Doped Fiber Laser based on Double and Multi-Walled Carbon Nanotubes
Frontiers in Optics/ Laser Sciences ,17-21 Sep. 2017 , Washington, USA

23- Subwavelength wire array metamaterial microwave cavities
Proc. SPIE. 10456 , Nanophotonics Australasia 2017

Eighth , languages:

- ✓ Arabic
- ✓ English

Ninth , International Collaboration:

1- Prof. Stefano Selleri

Prof. Stefano Selleri
Dipartimento di Ingegneria dell'Informazione
Università degli Studi di Parma
Viale G.P. Usberti 181/A - Campus Universitario
I-43124 Parma, Italy
email: stefano.selleri@unipr.it

**Joint research: photonic crystal fiber bio- sensors , PCF
characterization and Random lasers**

2- Prof. R.P.Sharma

Indian Institute of Technology, CES, Delhi, India

Joint research:

Terahertz generation from relativistic plasma

3- Prof. Yanqing Lu

College of Engineering and Applied Sciences

Nanjing University, P. R. China.

Joint research: Photonic crystal fiber temperature and strain sensors.

4-Prof.Dr. Alexander Argyros

Institute of Photonics and Optical Science (IPOS), School of Physics, The University of Sydney.

Joint research: meta-materials fabrication and characterization.

Tenth, Seminars:

- 1- High power fiber laser /Institute of laser-University of Baghdad.
- 2- Photonic Crystal fiber Applications /Institute of laser-University of Baghdad.
- 3- Scopus and Thomson Reuters comparison/Institute of laser-University of Baghdad.
- 4- Short and ultrashort laser pulses /Institute of laser-University of Baghdad.
- 5- THz technology and its applications / Al-Nahrain university, college of engineering.
- 6- Laser ignition /Institute of laser-University of Baghdad.
- 7- Metamaterials/ Institute of laser-University of Baghdad.
- 8- Nobel prizes in the field of lasers / Institute of laser-University of Baghdad.
- 9- How lasers got practical./ University of Baghdad.

Eleventh, International Research projects:

I did participate during my postdoc research work (2003-2004) in a project entitled " Laser ignition of internal combustion engine" .This project was

carried out at the institute of photonics-Vienna university of technology, Vienna-Austria. The team was very homogenous and cooperative. A real demonstration for the first laser plug was realized.

- **Other IDs**

[Scopus Author ID: 9738260300](#)

ORCID

A.Hadi Al-Janabi

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