

C.V

Name: Abdul Hadi M. Abid

Date of Birth: 1.9.1963

Religion: Muslim

Martial statues: Married

No. of children: five

Specialization: Applied physics-laser

Position: Professor , Dean Institute of laser

Scientific Degree: Ph.D.

Work Address: Institute of laser for postgraduate studies-university of Baghdad. IRAQ



■ **First, Scientific Certification:**

Degree science	University	College	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	Institute of photonics	2003- 2004



■ **Second, Career:**

No.	Career	Wor-kplace	From –To
1	Lecturer	Institute of laser for postgraduate studies- University of Baghdad	1995-1998
2	Asst.Prof	Institute of laser for postgraduate studies University of Baghdad	1998-2005
3	Head, Industrial and Engineering Dept.	Institute of laser for postgraduate studies University of Baghdad	2001-2003
4	Research assistant	Institute of Photonics, Vienna university of Technology, Austria	2003-2004
5	Professor	Institute of laser for postgraduate studies University of Baghdad	2005-
6	Dean	Institute of laser for postgraduate studies University of Baghdad	2014-

Third, University Teaching.

No.	University	The (Institute / College)	From –To
1	University of Baghdad	<i>Institute of laser for postgraduate studies, university of Baghdad</i>	1995 – 2014
2	University of Baghdad	<i>College of engineering – university of Baghdad</i>	1997-2000
3	University of Baghdad	<i>College of science-university of Baghdad</i>	1996

Fourth, Courses Which I Teach:

No.	Department	Subject	Year
1	Physics-University of Baghdad	Plasma physics-B.Sc.	1996
2	Nuclear eng, dept-University of Baghdad	Plasma-B.Sc.	1997-2000
3	Institute of laser-University of Baghdad	Laser material interaction/ M.Sc	1997-2001
4	Institute of laser-University of Baghdad	Plasma Physics / M.Sc.	1996-2001

5	Institute of laser- University of Baghdad	Laser /M.Sc.	2001-2013
6	Institute of laser- University of Baghdad	Laser applications / M.Sc.	2001-2013
7	Institute of laser- University of Baghdad	Laser Technology I / Ph.D	2004-2013
8	Institute of laser- University of Baghdad	Laser Technology II /Ph.D	2004-2013
9	Institute of laser- University of Baghdad	Laser material processing/ Ph.D	2013
10	Institute of laser- University of Baghdad	Ultra short laser pulses / M.Sc	2004
11	Institute of laser- University of Baghdad	Photonic crystal fiber/Ph.D	2010-2013
12	Institute of laser- University of Baghdad	Trends in Metamaterials/ Ph.D.	2012-2013

■ Fifth, Thesis which was supervised by :

32 M.Sc. and Ph.D. theses

A book co-author:

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:

Member, Optical Society of America (OSA)

1- Head, scientific committee, Institute of Laser for postgraduate studies-University of Baghdad

2-Editorial board member, Iraqi journal of laser.

3-Institute of laser consultant bureau member.(university of Baghdad)

4- Reviewer with OSA journals (photonics and optics)

5-Reviewer Chinese optics letters.

Seventh

Publications :

1-DMSO-based photonic crystal fiber sensor with enhanced sensitivity.

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

2-Bio-functionalized hollow core photonic crystal fibers for label-free DNA detection

SPIE BiOS, 89380T-89380T-8 ,2014 .

3-Refractive Index Scaling in Hollow Core Photonic Crystal Fiber

Accepted for publication in Iraqi journal of laser , 2014

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

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

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

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

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

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

7-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

8-Photonic platform based on functionalized microstructured fiber for DNA detection

Second Workshop:Optical Biosensors and Biophotonics Group of the SIOF Sestri/Italy 2013

9-Nanoparticle enhanced fiber platform for biosensing applications

Invited paper Capri/ Italy , 2013 , EOS Topical Meetings at Capri

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

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

11-Terahertz generation by the high intense laser beam

Journal of Plasma Physics 78 (05), 553-558 , 2012 .

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

ETOPIM9 Marseille, France , 2012

13-Metal Wire Arrays Fabricated by Drawing for THz and IR Metamaterials

(invited talk) IRMMW-THz,Wollongong,Australia 2012

14-Efficient transportation of Nd laser beam through photonic crystal fiber

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

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

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

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

META10, 2010.

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

Atti della Fondazione Giorgio Ronchi, 301 , 2009.

18-Transportation of Gaussian pulses via photonic bandgap fiber

ICTON, Spain, 2006.

19-Novel applications of short and ultra-short pulses

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

20-Transportation of nanosecond laser pulses by hollow core photonic crystal fiber for laser ignition

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

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

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

22-High power laser transmission through photonic band gap fibers

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

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

Transparent Optical Networks, 2005, Proceedings of 2005 7th International ... ,2005

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

25-*Photonik crystal fibers for practical applications*

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

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

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

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

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

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

Iraqi J. Laser, Part A, Vol. 1, No.1,pp31-37 ,2002.

29-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.

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

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

31-Design and construction of a high energy Nd:glass laser system
J. of College of Education for Women Vol.13(1),2002

32-The conducting wall effect on single probe measurements",
Indian J.Phys.75B(2),123-128 , 2001.

33-Laser microwelding of mild steel wires

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

34-Bohm diffusion equation in quadrupole.

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

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

Iraqi J.Sci , 1998

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

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

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

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

38-Microwelding of different types of wires using laser beam.

Journal of science and technology, 1995.

39-Generation of cyclotron harmonic waves in the ionospheric modification experiments

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

40-Parametric excitation of electrostatic whistler waves by electron plasma waves

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

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

Phys.Fluids-B: Plasma Physics,Vol.4,No.1,pp.79-86 , 1992 .

42-Parametric decay instabilities of the fast wave in the lower hybrid frequency regime

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

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

LASER4 international conference, Paris,17-18 march 1988

Eighth , languages:

- ✓ Arabic
- ✓ English

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.

Current research of interest: Photonics applications; metamaterial characterization ; photonic crystal fiber sensors.
Fiber laser

Collaboration:

1-Dr. Alexander Argyros

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

Joint research: meta-materials

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. 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 and PCF lasers