

## C. V.

### **Mohamed Helali**

#### **Personal Information**

- Name: Mohamed Yahia Elemam Helali
- Nationality: Egyptian
- Current Job: Assistant Lecturer at the Space Research Laboratory – National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo  
Egypt.
  
- Birth Date: 25<sup>th</sup> March 1971
- Email: [mohelaly71@gmail.com](mailto:mohelaly71@gmail.com)
- Mobile Numbers: 002 - 0111 3810 365 / 002 - 0109 5004 632

#### **Academic Qualifications:**

##### **1- Current:**

PhD Study in Physics; "Laser Sciences and Interactions", at the National Institute of Laser Enhanced Sciences (NILES), Cairo University, 2015-2019.

##### **2- Past:**

- Masters Degree in Physics; "Laser Systems and Applications", From the National Institute of Laser Enhanced Sciences (NILES), Cairo University, in 2008.
  
- Diploma "Laser Systems and Applications", National Institute of Laser Enhanced Sciences (NILES), Cairo University, 1996.
  
- Bachelor of Science (Physics), Faculty of Science – Cairo University, 1994.

## **Professional Experience**

### **1-Jobs:**

- Scientific Specialist at the Space Research Lab., National Research Institute of Astronomy and Geophysics (NRIAG), 1995 – 2012.
- Lecturer at Faculty of Medicine, King Saud University, Rhyad, Saudi Arabia, durin 2009.
- Assistant Lecturer at the Space Research Lab., National Research Institute of Astronomy and Geophysics (NRIAG), from 2012 – now.

### **2- Fields of Experience:**

- In the fields of solid state physics and solid state lasers, Satellite Laser Ranging (SLR) technique at Helwan Station, Space Research Lab., National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo – Egypt, from 1995 till now.
- Passed English TOEFEL Test with score 510,.
- Computer skills: Microsoft Word, Power point, Origin, Excel, All Internet skills and communications.
- 

### **Training Sessions:**

- I was trained twice on practical laser system construction, experimental measurements, and research at Faculty of Nuclear Sciences and Physical Engineering (FNSPE), Czech Technical Univ., Prague - Czech Republic in both 1997 and 1999 each training period was 15 working days.

### **Conferences and Workshops:**

- The 7<sup>th</sup> Intrnational Confernce on New Trends of Physics Research, Sharm El-Sheikh, Egypt, 20-23 April 2019.

- The 6<sup>th</sup> Arab Conference on Astronomy and Geophysics, NRIAG- Helwan, October 2018.
- The 5<sup>th</sup> Arab Conference of Astronomy and Geophysics, NRIAG- Helwan, October 2016.
- International Conference on Laser Applications, ICLA9, NILES, Cairo University, 13-15 November 2016.
- The 4<sup>th</sup> Arab Conference on Astronomy and Geophysics, NRIAG- Helwan, October 2014.
- The International Conference on Laser Induced Plasma Spectrometry , 29<sup>th</sup> Sep.- 4<sup>th</sup> Oct, 2012.
- The 3<sup>rd</sup> Arab Conference of Astronomy and Geophysics, NRIAG- Helwan, October 2012.
- International Conference of Energy and Environment, Luxor, December 12-15, 2011.
- The 2<sup>nd</sup> Arab Conference on Astronomy and Geophysics, NRIAG- Helwan, October 2010.
- The Arab Conference of Astronomy and Geophysics, NRIAG- Helwan, October 2008.
- International laser ranging service (ILRS) Fall workshop, Grace France, 25-28 September 2007.
- 1<sup>st</sup> International conference on Engineering Mathematics and Physics (EMP), Military Technical College Cairo, Egypt, May 14-16, 2002.

### **Publications:**

- Effects of laser irradiation on the microstructure and surface morphology of zinc oxide doped with different additives, M.Y. Helali, M.M. Saadeldin, Makram Ibrahim, Current Science, vol. 116, issue 11, 1818-1828, 2019.
- 
- Investigation of structural and electrical properties of ZnO varistor samples doped with different additives, M.M. Saadeldin, Osama A. Desouky, Makram Ibrahim, G.E. Khalil, M.Y.Helali, NRIAG Journal of Astronomy and Geophysics, 2018.
- 
- The effect of firing temperature on the electrical properties and the microstructure of ZnO varistors doped with CuO, M.Y.Helali, M.M. Saadeldin, M.M.Younis, M.M. Ahmed3, Indian Journal of Applied Research 5 (10), 610-619, Oct. 2015.
- 
- Development of the Stability on the Laser System Used at Satellite Laser Ranging Station, H.M. Mansour, A.A.I. Khalil, M.Y.Helali, M. Mansour Journal of Nuclear and Particle Physics 4 (1), 7-16, 2014.
- 
- Effect of dye transmission and input pumping energy on Nd:Yag mode-locked train of laser pulses stability, H.M.M. Mansour, M. Y. Helali, Makram Ibrahim, NRIAG journal of Astronomy and Astrophysics, 2008.

### **Research Projects:**

I have been participating in the joint project between Space Research Lab, National Research Institute of Astronomy and Geophysics, Egypt and Faculty of Nuclear Sciences and Physical Engineering, FNSPE, Prague, Czech Republic on "Satellite Laser Ranging from Helwan Station in Egypt since 1995 till now.

I am also a member of the next Proposed Project for SLR with China at NRIAG.

### **Other Activities:**

#### **Inventions:**

**I have been experimenting and constructing a prototype for my invention which was registered at the Egyptian Patent Office in June 2014 with the number: 983/2014, and title:**

**"A method and a system for producing both cold and hot fresh drinkable water from air with high efficiency"**

# ***Academic Certificates***



NATIONAL INSTITUTE OF LASER ENHANCED SCIENCES

المعهد القومي لعلوم الليزر



جامعة  
القاهرة  
المعهد القومي  
لعلوم الليزر



شهادة

يشهد المعهد القومي لعلوم الليزر بجامعة القاهرة

الجنسية: مصري

بأن السيد /محمد يحي الإمام هلاي

بتاريخ: ١٩٧١/٣/٢٥

والمولود في: القاهرة

قد حصل علي درجة الماجستير بقسم علوم الليزر وتفاعلاته شعبة أنظمة الليزر

موافقة الجامعة: ٢٠٠٨/٩/١١

موافقة مجلس المعهد: ٢٠٠٨/٤/٢٠

عنوان الرسالة:

"دراسة عن تحسين استقرار نظام الليزر المستعمل بمحطة حلوان لرصد وتتبع الأقمار الصناعية بأشعة الليزر "

Title of thesis:

" Study on the improvement of the stability of the laser system  
used at Helwan satellite laser ranging (SLR )station "

و قد تحررت هذه الشهادة بناء على طلبه.

عميد المعهد

وكيل المعهد لشئون الدراسات

رئيس القسم

د/ هشام علي شقير

العليا والبحوث

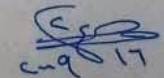
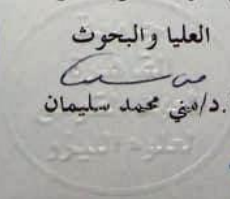
أ.د/ هاني محمد سليمان

١١/١١

١٦/٩/٢٠٠٨  
أمين الجامعة

١٦/٩/٢٠٠٨

١٦/٩/٢٠٠٨



بيان حالة  
يشهد المعهد القومي لعلوم الليزر

الجنسية: مصري

بأن السيد: محمد يحيى الإمام هلالي

بتاريخ: ١٩٧١/٣/٢٥

المولود في: القاهرة

قد اجتاز بنجاح السنة التمهيدية للماجستير بقسم (أنظمة الليزر) دور سبتمبر ١٩٩٧  
ولا يعتبر الطالب حاصل على الدرجة إلا بعد قبول الرسالة.  
وقد تحرر هذا البيان بناء على طلبه.

عميد المعهد



د/ هشام على شقير

وكيل المعهد لشئون الدراسات  
العليا والبحوث

أ.د/ مني محمد سليمان



يتمتع  
بإذن  
أمن بجامعة



خارجية جمهورية مصر العربية  
تنتبأ تصديقات أحمد عربى  
بالتاريخ ١٩٩٧/٣/٢٥  
على صحة التوقيع الصادر

٢٦١  
٢٠٩١٥



يشهد المعهد القومي لعلم الليزر بجامعة القاهرة

بأن السيد/ محمد يحيى الإمام هلاي النوع: ذكر الجنسية: مصري  
والمولود في: القاهرة بتاريخ: ١٩٧١/٣/٢٥

قد حصل علي دبلوم الدراسات العليا بقسم علوم الليزر وتفاعلاته شعبة أنظمة الليزر بتقدير عام: جيد دور: سبتمبر

| م             | المادة                              | التقدير  |
|---------------|-------------------------------------|----------|
| ١             | فيزياء الليزر (١)                   | جيد جداً |
| ٢             | رياضيات وحاسبات                     | مقبول    |
| ٣             | الكثرونيات ودوائر كهربية            | جيد      |
| ٤             | أمان الليزر                         | ممتاز    |
| ٥             | تطبيقات الليزر في المجالات المختلفة | ممتاز    |
| ٦             | فيزياء الليزر (٢)                   | مقبول    |
| ٧             | أنظمة القياس والكشف                 | جيد      |
| ٨             | تصميم وبناء أنظمة الليزر            | جيد      |
| ٩             | عملي                                | جيد      |
| التقدير العام |                                     | جيد      |

\* تاريخ موافقة مجلس المعهد: ١٩٩٦/١١/٢٥

\* تاريخ موافقة جامعة: ١٩٩٧/٢/١٢

و قد تحررت هذه الشهادة بناء على طلبه.

مكتبة التصديق  
تصديق  
رئيس اللجنة  
٢٠١٦  
د/ منى محمد سليمان  
٢٠١٦  
٧٨١  
٢٠١٦





المعهد القومي لعلوم الليزر

## شهادة مؤقتة

يشهد المعهد القومي لعلوم الليزر بجامعة القاهرة

محافظة القاهرة

بأن السيد / محمد يحيى الامام هلال المولود في

بتاريخ ١٩٧١ / ٣ / ٢٥

( أنظمة الليزر )

قد حصل على دبلوم الدراسات العليا في

دور سبتمبر ١٩٦٦ بتقدير جيد //

وتحررت هذه الشهادة بناء على طلبه لتقديمها الى من يهمه الامر ،،

عميد المعهد

رئيس قسم الدراسات العليا

( د. ا. سيد سيف الدين حسين )

الموظف المختص

د. ا. سيد سيف الدين حسين



تحريرا في ١٩٩٧ / ٥ / ٢٥

١٩٩٧ / ٥ / ٢٥  
٢٥ / ٥ / ١٩٩٧

١٩٩٧ / ٥ / ٢٥

***Rrcommendation letters,  
Attendance, Participation, and  
Appreciation Certificates***





National Research Institute of Astronomy and Geophysics  
(NRIAG)  
The Arab Conference on Astronomy and Geophysics  
Fifth Assembly  
ACAG5



## LETTER OF ATTENDANCE

This is to certify that *Dr. /*

**Mohamed. Y. Helali**

Has attended the endeavors of the Arab Conference on Astronomy and  
Geophysics "5th Assembly" during:

17<sup>th</sup> to 20<sup>th</sup> of October 2016

Through his presence. He presented his paper entitled

**"Characterization of ZnO Varistor Samples  
Doped With Different Concentrations of CuO"**

Prof. Abbas Mohamed Abbas

LOC Chairman



Prof. Hatem Hamdy Odah

Conference Chairman

On 17.10.2016

Tel : (+202) 2554100 - (+202) 25549780  
Fax : (+202) 25548020  
Mob: (+20) 1113309595  
<http://www.nriag.sci.eg>  
<http://www.acag-conf.org>

تليفون: ٢٥٥٤٩٧٨٠ - ٢٥٥٤١١٠٠  
فاكس: ٢٥٥٤٨٠٢٠  
موبيل: ٠١١١٣٣٠٩٥٩٥  
E-mail: [acag5.conf@gmail.com](mailto:acag5.conf@gmail.com)



# شهادة حضور ومشاركة

تشهد اللجنة المنظمة للمؤتمر العربي السادس في الفلك والجيوفيزياء بأن

الدكتور / محمد يحيى الإمام هلالى

قد حضر وشارك في فعاليات المؤتمر خلال الفترة (١٥-١٧ أكتوبر ٢٠١٨) بمقر المعهد القومي للبحوث الفلكية والجيوفيزيقية

طوان - القاهرة

والجانب شهادة مشاركة

رئيس المؤتمر  
أ.د. / حاتم حمدي عودة

مقرر المؤتمر  
أ.د. / أحمد علي بدوي

  
**Knowledge E**  
Engaging minds

## CERTIFICATE OF ATTENDANCE

Awarded to

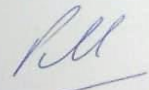
Mohamed Yahia El-Emam Helali

For successful completion of the workshop courses,

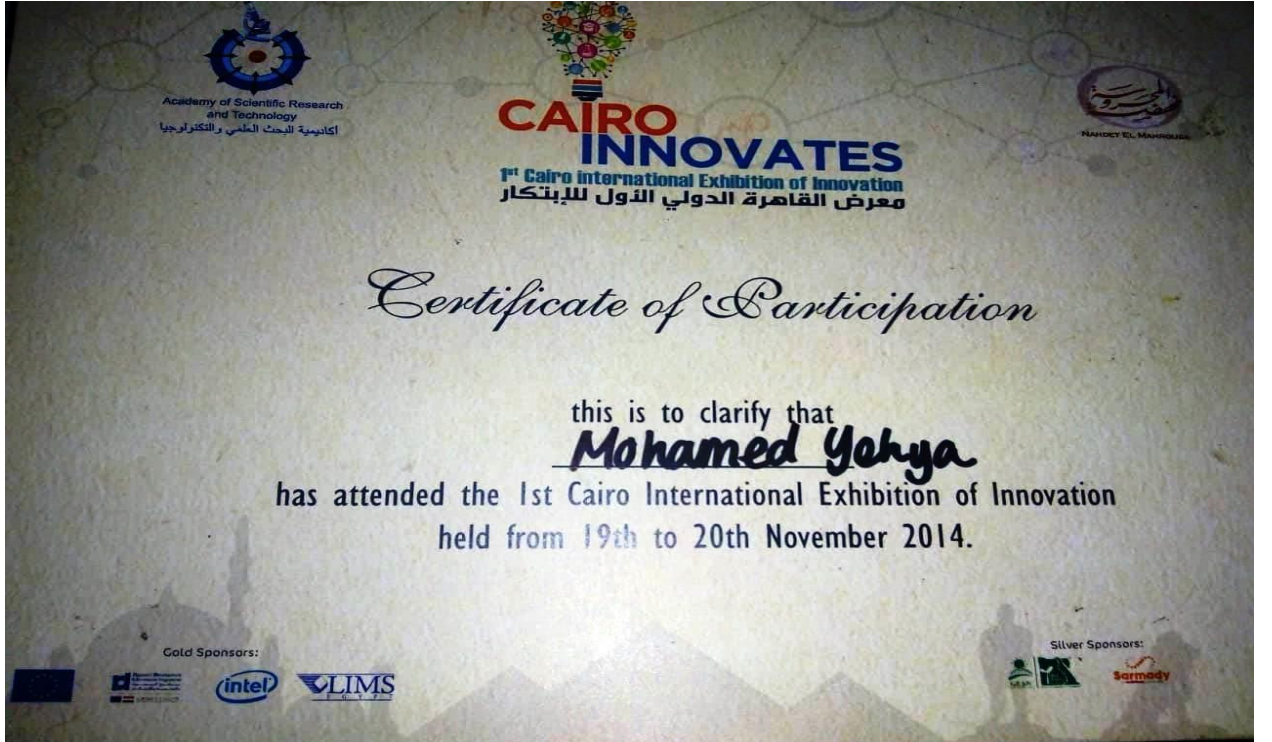
**The Entrepreneurial Academic**

at Academy of Scientific Research and Technology, Cairo, Egypt on the 25<sup>th</sup>- 26<sup>th</sup> July 2018

  
Andrew Corcoran  
Course Director

  
Philip J. Purnell  
Director - Research & Publishing  
Services, Knowledge E

  
Egyptian Knowledge Bank  
بنك المعرفة المصري







### To Whom It May Concern

The President of the Patent Office certifies that **Mr. Mohamed Yahia Helali** ( Address : The National Institute of Astronomical & Geophysical Research , Helwan , Cairo , Egypt ) has filed application No 2005040168 on 03/04/2005 to obtain a patent for an invention titled :

**"A NEW AND HIGHLY EFFICIENT METHOD AND SYSTEM FOR SUPPLYING BOTH FRESH WATER AND ENERGY "**

The inventor of this application is **Mr. Mohamed Yahia Helali**

This Document has been given to **Mr. Mohamed Yahia Helali** upon his request dated 03/05/2005

*Mervat. T.*

Eng. Nadia J. Abd-Allah

*Nadia*

President,  
Egyptian Patent Office

Approved by :

Prof. Dr. Fawzi A. Elrefaie

*Elrefaie - May 18 2005*

President,  
Academy of Scientific  
Research and Technology

This Document is given to an applicant upon his request  
This Document doesn't, by any means, indicate that a patent has been issued for the applicant



# Ain Shams University

Centre of Public Service and Social Development

## Certificate

This is to certify that

**Mr. Ms. / Mohamed Yahia El Emam Helaly**

**on 19/6/2008**

Has completed the following course

**Advanced English "TOEFL"**



وزارة الخارجية  
مكتبها العامة  
رقم التسجيل  
مصدره  
التمثيل

|             |
|-------------|
| TOTAL SCORE |
| 510         |

Controller  
No. 15  
الأمين

Manager  
الأمين

Centre director  
Prof. Dr. Mohebat Abo Emira

الأمين  
مدير الجامعة

الأمين

مدير الجامعة

MINISTRY OF SCIENTIFIC RESEARCH  
NATIONAL RESEARCH INSTITUTE OF ASTRONOMY  
AND GEOPHYSICS (NRIAG)  
HELWAN, EGYPT  
Administration for Employee Affairs

وزارة البحث العلمي  
المعهد القومي للبحوث الفلكية والجيوفيزيقية  
حلوان - جمهورية مصر العربية  
ادارة شئون العاملين  
قسم الملفات

## الى من يهمة الامر

نفيد سيادتكم علماً بأن السيد: .....

من العاملين الدائمين بالمعهد ويشغل وظيفة: .....

وذلك اعتباراً من ١٥ / ١ / ٢٠١٤

والرقم التأميني / .....

وذلك دون ادنى مسئولية على المعهد .

وتفضلوا سيادتكم بقبول فائق الاحترام ...



مدير عام الاحارة

حذرة

رئيس قسم الملفات

حذرة

حارة

## Recommendation Letter

Name of Candidate: Mohamed Yahia Elemam Helali  
Job: Assistant Researcher – NRIAG, Helwan – Cairo - Egypt

### Evaluation

I have known the Applicant since 1995, through this period he had a practical laser training. Since beginning, applicant takes part in a research project deals with the energy stabilization the mode-locked Nd:YAG laser.

My opinion of the applicants ability and professional competence in comparison with other individuals whom I have known at similar stages at their careers is excellent.

Knowledge in his field, ability to learn new matter, and ability to work with others is excellent too. His initiative, seriousness, and willingness to work towards goals are strong. My overall endorsement of the applicant for physics PhD scholarship program is: Recommend highly.

Thank you for your time and consideration.

Prof. Dr. Khalil Ibrahim Khalil

Khalil Ibrahim

27-6-2012

Head of the Department

Of Solar and Space Research

NRIAG – Helwan – Cairo – Egypt

Email: Khalil\_nriag@yahoo.com Date: 27 / 6 / 2012



**Czech Technical University**  
Faculty of Nuclear Science  
and Physical Engineering  
Břehova 7, 115 19 Prague 1, Czech Republic



*Name of candidate:* Mohamed Yahia El-Emam Helaly

*Name of the employing organization:* National Research Institute of  
Astronomy and Geophysics

*City:* Cairo

*State:* Helwan

*Country:* Egypt

### **Evaluation**

I have known the applicant since 1995, through this period he had a practical laser training on picosecond flashlamp pumped Nd:YAG laser system for Helwan SLR. Since beginning, applicant takes part in research project dealing with a stabilization of the mode-locked Nd:YAG laser. I recently reviewed his MSc work and thesis titled "Study on the Improvement of the Stability of the Laser System Used at Helwan Satellite Laser Ranging (SLR) Station" which is already approved by NILES - Cairo University.

My opinion of the applicant's ability and professional competence in comparison with other individuals whom I have known at similar stages of their careers is Excellent.

Knowledge in his field and ability to learn new matter and ability to work with others is excellent too. His initiative, seriousness, and willingness to work towards goals are strong.

My overall endorsement of the applicant for Physics PhD scholarship program is:  
Recommend highly.

Thank you for your time and consideration.

*Signature:*

*Date:* April 30<sup>th</sup>, 2008

**Helena Jelinková**  
Professor of Applied Physics  
E-mail: [helena.jelinkova@fdj.cvut.cz](mailto:helena.jelinkova@fdj.cvut.cz)

České vysoké učení technické v Praze  
Fakulta jaderná a fyzikálně inženýrská  
KATEDRA FYZIKÁLNÍ ELEKTRONIKY  
115 19 Praha 1, Břehova 7  
2025010001