

## Curriculum Vitae



### Personal Data

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Family name: Abdel-Hadi  
First name: Yasser  
Middle name: Abdel-Fattah  
Sex: Male  
Place of birth: Cairo, Egypt  
Date of birth: 07.06.1969  
Nationality: Egyptian  
Marital Status: Married  
Address: Home: 221 Gisir El-Suez Str. Apt. 8, Heliopolis, Cairo, Egypt.  
Office: National Research Institute of Astronomy and Geophysics (NRIAG) – El-Marsad Str. – 11421 – Helwan – Cairo – Egypt.  
Tel.: Home: 002 02 26335953  
Office: 002 02 25560645 Ext: 1371  
Mobile: 002 0100 556473  
Fax: Office: 002 02 25548020  
Email: [yasser\\_hadi@yahoo.com](mailto:yasser_hadi@yahoo.com)  
[yasser.hadi@nriag.sci.eg](mailto:yasser.hadi@nriag.sci.eg)

### Employment Record

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01. 2021 – Present    **Professor** in the **Solar Research Laboratory, Department of Solar and Space Research** of the **National Research Institute of Astronomy and Geophysics (NRIAG)**, Helwan, Cairo, Egypt.

## Physicist Prof. Dr. Yasser A. Abdel-Hadi, Ph.D.

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09. 2017 – 01. 2019 **Associate Professor (Lecturer)** in the **Physics Department, Faculty of Science, Helwan University**, Helwan, Cairo, Egypt.
06. 2014 – 01. 2021 **Associate Professor** in the **Solar Research Laboratory, Department of Solar and Space Research of the National Research Institute of Astronomy and Geophysics (NRIAG)**, Helwan, Cairo, Egypt.
01. 2011 – 05. 2011 **Visiting Researcher** in the **Physics Department** of the **School of Science and Engineering** at the **American University in Cairo (AUC)**.
12. 2006 – 06. 2014 **Researcher (Lecturer)** in the **Solar Research Laboratory, Department of Solar and Space Research of the National Research Institute of Astronomy and Geophysics (NRIAG)**, Helwan, Cairo, Egypt.
04. 2004 – 12. 2005 Accomplishment of the Ph.D. project as **Scientific Co-worker** in the **Institute of Optics** of the **Technical University of Berlin**.
10. 1999 – 03. 2004 **Ph.D. student** in the **Institute of Optics** of the **Technical University of Berlin**, through a **DAAD-Scholarship**.
- 01.1997 - 09.1999 **Assistant Researcher (Assistant Lecturer)** in the **Solar Research Laboratory, Department of Solar and Space Research of the National Research Institute of Astronomy and Geophysics (NRIAG)**, Helwan, Cairo, Egypt.
- 06.1991 - 01.1997 **Reader** in the **Solar Research Laboratory, Department of Solar and Space Research of the National Research Institute of Astronomy and Geophysics (NRIAG)**, Helwan, Cairo, Egypt.

## Fields of Interests

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- **Main Field:** Solar Energy.
- **Additional Fields:** Environmental Researches, Space Technology, Cultural and Archeo-astronomy.

## Lecturing and Teaching Experience

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- 1- **Solar Energy Course** for the trainees in the National Research Institute of Astronomy and Geophysics (NRIAG) in June and July 1994 and 1995.

- 2- **Solar Radiation Course** for the trainees in the National Research Institute of Astronomy and Geophysics (NRIAG) in June and July 1994 and 1995.
- 3- **Plasma Physics** for the 4<sup>th</sup> class students at Faculty of Education of Helwan University in Winter Semester 2017 and in Winter Semester 2018.
- 4- **Electron Optics** for the 3<sup>rd</sup> class students at Faculty of Education of Helwan University in Winter Semester 2017 and in Winter Semester 2018.

## **Studying**

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05. 2001 – 12.2005    **Technical University of Berlin (Germany)**  
Specialization: Physics.  
Degree: Ph.D. in Physics.  
Main Point: Solar Pumped Solid State Laser.  
„Development of optical concentrator systems for directly solar pumped laser systems”.  
(Through a Scholarship from the German Academic Exchange Service (Deutscher Akademischer Austauschdienst (DAAD))).
06. 2000 – 04. 2001    **Technical University of Berlin (Germany)**  
Specialization: Physics.  
Degree: Academic Recognition of the Master Degree as a Diplom degree in physics.
10. 1999 – 03. 2000    **Goethe Institute of Göttingen (Germany)**  
Subject: German as a Foreign Language.  
Degree: High Level.  
Succession in DSH Exam.  
DAAD Scholarship holder.
- 03.1994 -06.1996    **Ain Shams University in Cairo (Egypt)**  
Specialization: Physics.  
Degree: Master (M.Sc.).  
“Numerical Simulation Model for the Optical Behaviour of the Compound Parabolic and Conical Solar Energy Concentrators for Laser Beam Generation”.
- 09.1991 - 10.1993    **Ain Shams University in Cairo (Egypt)**  
Specialization: Physics.  
Degree: Premaster in Physics.
- 09.1986 - 05. 1990    **Ain Shams University in Cairo (Egypt)**  
Specialization: Physics.  
Degree: B.Sc. of Physics.  
Degree notes: Very Good (82.28 %).

## **Training / Education**

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12. 2015	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>Competitive Research Proposal Writing</i>
11. 2015	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>Dealing with Change</i>
07. 2015	<b>Faculty of Commerce and Business Administration,</b> Helwan University Campus in Zamalek, Cairo <i>Proposal Writing Post Docs</i>
02. 2014	<b>National Research Institute of Astronomy and Geophysics (NRIAG)</b> <i>SPSS Programme and its Applications</i>
12. 2013	<b>National Research Institute of Astronomy and Geophysics (NRIAG)</b> Primary Linux Course
04. 2013	<b>Beni-Suef University</b> <b>Faculty of Postgraduates for Advanced Sciences</b> Beni-Suef, Egypt <i>Nanoscience and Nanotechnology</i>
01. 2012	<b>Scientific Instrument Center (SIC)</b> Giza, Egypt <i>Maintenance and Repairing the Electronic Instruments</i>
10. 2011	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>Ethics in Science</i>
10. 2011	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>Scientific Thinking and Argumentation Skills for Problem Solving</i>
04. 2011	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>Beautiful Book Typesetting by LaTeX: A Step to Structured Editing</i>
04. 2011	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>Strategic Thinking and Career Management I &amp; II</i>
10. 2010 – 12. 2010	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>3<sup>rd</sup> Intake of the DAAD Alumni Akademie (Business Plan, Creative Thinking, Effective Solution Finding and Change Management)</i>
03. 2010 – 05.2010	<b>DAAD-Office in Cairo</b> Cairo, Egypt <i>2<sup>nd</sup> Intake of the DAAD Alumni Akademie (Enhancing the Managerial and Soft Skills of Young Professionals)</i>
06. 2009 – 06. 2009	<b>National Research Center</b>

- Giza, Egypt  
*Skills of Proposal Formulation Workshop*
11. 2008 – 11. 2008 **Cairo University – Science Year Follow Up**  
Cairo, Egypt  
*Proposal Writing Workshop*
11. 2008 – 11. 2008 **Cairo University – Science Year Follow Up**  
Cairo, Egypt  
*Development of the Managerial Skills of Academics and Researchers*
11. 2008 – 11. 2008 **Cairo University – Science Year Follow Up**  
Cairo, Egypt  
*Renewable Energies*
11. 2008 – 11. 2008 **Cairo University – Science Year Follow Up**  
Cairo, Egypt  
*FP7 Proposal Writing*
11. 2007 – 11. 2007 **Central Agency for Organisation and Administration**  
Cairo, Egypt  
*Computer Maintenance Course*
03. 2005 – 03. 2005 **Technical University of Berlin (Germany)**  
*Seminar (Career Planning and Preparation for the Profession)*
03. 2005 – 03. 2005 **Technical University of Berlin (Germany)**  
*Seminar (Team Training and Conflict Management)*
03. 2005 – 03. 2005 **Technical University of Berlin (Germany)**  
*Seminar (How to Start a Business)*
03. 2005 – 03. 2005 **Technical University of Berlin (Germany)**  
*Seminar (International Marketing)*
03. 2005 – 03. 2005 **Technical University of Berlin (Germany)**  
*Seminar (Innovation Management)*
01. 2005 – 01. 2005 **Technical University of Berlin (Germany)**  
*Seminar (Intensive Application Trainings for Foreign Students and Graduated of TU-Berlin 2005)*
- *Starting Profession Abroad or in Germany*
  - *Experiences in the Application Training*
09. 2004 – 10. 2004 **Technical University of Berlin (Germany)**  
*Seminar (Management of International Economical and Scientific Cooperation Projects)*
- *Planning and Management of Scientific Cooperation Projects*
  - *Promotion of the Economy*
  - *Foreign Trade*
  - *Investment in Foreign Countries*
  - *Development Cooperation*
  - *Financing of Projects*
  - *Public Private Partnership*
  - *Trade Representation and International Distribution*
  - *Cooperation Need of Companies and Consultants in the Foreign Business*
  - *Scientific Cooperation*

- *Case Studying of Investition Possibility and Cooperation Projects in different Countries*
- 10. 1999 – 03. 2000 **Goethe Institute of Göttingen (Germany)**  
Subject: *German as a Foreign Language*  
Completion: High Level  
Succession in DSH Exam.  
DAAD Scholarship holder
- 02. 1999 – 04. 1999 **Regional Centre for Adult Education (ISFEC)**  
Sirs El-Layyan, Egypt  
*Intensive German Course*
- 04. 1998 – 04. 1998 **Central Agency for Organisation and Administration**  
Cairo, Egypt  
*Basic Knowledges of Visual Basic*
- 02. 1998 – 03. 1998 **American University in Cairo (AUC)**  
Cairo, Egypt  
*TOEFL Course*
- 03. 1997 – 03. 1997 **Central Agency for Organisation and Administration**  
*Basic Knowledges of Planning with (Access) Programme*
- 10. 1996 – 10. 1996 **Academy of Scientific Research and Technology**  
Cairo, Egypt  
*Intensive English Course*
- 05. 1995 – 05. 1995 **Scientific Instruments Center**  
Cairo, Egypt  
*The Use of the Laser Systems*
- 10. 1994 – 10. 1994 **Academy of Scientific Research and Technology**  
Cairo, Egypt  
*TOEFL Course*
- 04. 1994 – 04. 1994 **Academy of Scientific Research and Technology**  
Cairo, Egypt  
*Techniques of Writing Abstracts*
- 10. 1993 – 10. 1993 **Academy of Scientific Research and Technology**  
Cairo, Egypt  
*Intensive English Course*
- 04. 1993 – 04. 1993 **Academy of Scientific Research and Technology**  
Cairo, Egypt  
*New Technologies in the Information Field*

#### **Extra-Professional Activities**

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- 04. 2009 – Now **Ministry of Education in Egypt**  
Translating the final exam of Physics of secondary school into German language.
- 12. 2004 – 02. 2005 **Al-Ahram Publisher (Al-Ahram Verlags (GmbH)) office of Berlin**

Slight work of secretary and management.

06. 2004 – 09. 2004 Holding an Arabic Course for the German Beginners (Private).

09. 2003 - 01. 2004 **The Egyptian Community in Berlin (Ägyptischen Gemeinschaft in Berlin e.V.)**  
Holding an Arabic Course for the German Beginners.

10. 1990 - 12. 1991 **Military service.**

07. 1990 - 10. 1990 **Universal Encyclopedia Center**  
Slight work in sales.

### **Honourary Activities and Membership**

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06. 1991 – Present **Member of Egyptian Scientific Syndicate (Egyptian Syndicate of Scientific Professions (ESSP)).**

12. 2001 – 01. 2004 **Member of German Physical Society (Deutsche Physikalische Gesellschaft (DPG)).**

04. 2003 – 01. 2004 **Head of Department of Cultural Activities in The Egyptian Community in Berlin (Ägyptischen Gemeinschaft in Berlin e.V. (DÄGB)).**

11. 2006 – Present **Member of the German Egyptian Network of Young Scientists (GENYS).**

01. 2007 – Present **Member of the Arab Society of Advanced Laser Application (ASALA).**

02. 1999 – Present **Member of DAAD-Alumni Society.**

04. 2000 – Present **Member of Technical University of Berlin Alumni Society (TU Berlin Alumni).**

06. 2007 – Present **Member of Germany Alumni Society (Alumni-Portal Deutschland (APD)).**

06. 2013 – Present **Member of Egyptian Society for Astronomy and Space Science (ESASS).**

08. 2016 – Present **Member of Arab Researcher ID (ARID).**

06. 2018 – Present **Member of the International Astronomical Union (IAU).**

08. 2018 – Present **Member of the Technical Society of Laser Science (TSLs).**

### **Special Knowledge**

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Computer knowledge: Microsoft Office (Word / Excel / PowerPoint / Access / Outlook / Explorer) – ICDL-Licence.

Good knowledge in: Basic, MathCad, Origin, Adobe Photoshop, IrfanView, Paint Shop Pro., Trace Pro.

Basic Knowledge in: AutoCAD, LabView, Visual Basic, Mathematica, CorelDraw.

Good knowledge in High Arabic.

Fit for Teaching: Physics, Mathematics, Chemistry, Languages (Arabic, English and German for Beginners).

Languages: Arabic (mother tongue), English (very good), German (very good).

Hobbies: Reading, Writing Poetry, Sport, Travelling, Jogging, Photographing, Filming.

## **Scientific Publications**

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### **Books**

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**1- Development of optical concentrator systems for directly solar pumped laser systems**

**Yasser A. Abdel-Hadi**

Published by *Mensch & Buch Verlag (Berlin, Germany)*.

ISBN: 3-86664-052-8 / 978-3-86664-052-8, July 2006.

Language: English.

**2- Primera Escuela Interamericana de Astronomía Cultural  
(First Inter-American School of Cultural Astronomy)**

Antonio César González García, Juan Antonio Belmonte Mosalam Shaltout, Magdi Fekri, **Yasser Abdel-Hadi**, Gonzalo Pereira Quiroga, Johanna Broda, Priscila Faulhaber y Alejandro Martín López.

Sixto R. Giménez Benítez y Cecilia Gómez (Editores).

Published by *La Plata: Universidad Nacional de La Plata. Facultad de Ciencias Astrónomicas y Geofísicas. Observatorio Astronómico de la Plata, (La Plata, Argentina)*.

ISBN 978-950-34-1 300-5, June 2016.

Language: Spanish.

### **Theses**

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**1- Ph.D. thesis**

**"Development of optical concentrator systems for directly solar pumped laser systems"**

*Ph.D. thesis*, Fachbereich Physik, Faculty II (Mathematics and Natural Sciences (Mathematik und Naturwissenschaften)), Technical University of Berlin, Berlin, Germany, February 2006, Published by *Mensch & Buch Verlag (Berlin, Germany)*, ISBN: 3-86664-052-8 / 978-3-86664-052-8, Discussed on December 22, 2005, Published in July 2006.



**2- M.Sc. thesis**

**"Numerical Simulation Model for the Optical Behaviour of the Compound Parabolic and Conical Solar Energy Concentrators for Laser Beam Generation"**

*M.Sc. thesis*, Physics Department, Faculty of Science, Ain Shams University, Cairo, Egypt, November 21, 1996.

**3- B.Sc. Accomplishment Report**

**"Nuclear Magnetic Moments"**

*A report of the graduation project for getting the B.Sc. degree*, Physics Department, Faculty of Science, Ain Shams University, Cairo, Egypt, May 1990.

**Articles**

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- 1- **Yasser A Abdel Hadi**, "Space-Based Solar Laser System Simulation to Transfer Power onto the Earth", *NRIAG Journal of Astronomy and Geophysics*, Vol. 9, No. 1, pp. 558-562, <https://doi.org/10.1080/20909977.2020.1815497>, September 2020.
- 2- Nadjem Bailek, Kada Bouchouicha, **Yasser A. Abdel-Hadi**, Mohamed El-Shimy, Abdeldjalil Slimani, Basharat Jamil and Abdallah Djaafari, "Developing a new model for predicting global solar radiation on a horizontal surface located in Southwest Region of Algeria", *NRIAG Journal of Astronomy and Geophysics*, Vol. 9, No. 1, pp. 341–349, doi:10.1080/20909977.2020.1746892, April 2020.
- 3- **Yasser A Abdel Hadi**, M S Abo Ghazala, Samir A Yousef, U Ali Rahoma, Ahmed A Elminawy, "Raman spectroscopy of unknown mineral sample by solar pumped laser system", *Journal of Physics: Conf. Series* 1472 (2020) 012006, IOP Publishing, doi:10.1088/1742-6596/1472/1/012006, March 2020.
- 4- **Yasser A. Abdel-Hadi**, "Space-Based Nano-Material Enhanced Solar Laser System Simulation for Transferring Power onto the Earth", *Journal of Experimental & Theoretical Nanotechnology Specialized Researches (JETNSR)*, Vol. 2, No. 2, 2018.
- 5- Sh. Payziyev, Kh. Makhmudov and **Yasser A. Abdel-Hadi**, "Simulation of a new solar Ce:Nd:YAG laser system", *Optik*, Vol. 156, pp. 891–895, 2018.
- 6- Sh. Payziyev, Kh. Makhmudov and **Yasser A. Abdel-Hadi**, "Ti:Sapphire as A Frequency Converter for Solar Pumped Nd:YAG Lasers", proceedings of the *International Conference Fundamental and Applied Problems of Physics*, pp. 200 – 203, Tashkent, Uzbekistan, June 2017.
- 7- U. A. Rahoma, A. H. Hassan, **Y. A. Abdel-Hadi** and A. Abulwfa, "An optimization approach of hybrid PV-wind renewable energy systems for power

- generation in Egypt", *WIT Transactions on Ecology and The Environment*, Vol 210, ISSN 1743-3541, *Sustainable Development and Planning VIII*, ISBN: 978-1-78466-153-3, pp. 541 – 552, December 2016.
- 8- Y. Sobirov and **Yasser A. Abdel-Hadi**, "Influence of the Solar Eclipse on the Power and Operational Parameters of the Big Solar Furnace in Parkent of Uzbekistan", *International Journal of Energy and Smart Grid (IJESG)*, Vol 1, Number 1, pp. 2 – 13, 2016.
- 9- H. Farouk, R. H. Hamid, **Yasser A. Abdel-Hadi** and A. Abulwfa, "RAF of UV Index at Helwan, Egypt", *International Journal of Engineering Science Invention*, ISSN (Print): 2319 – 6726, Vol. 5, Issue 6, pp. 65 – 68, June 2016.
- 10-A. H. Hassan and **Yasser A. Abdel-Hadi**, "Naked Eye Determination of the Dawn at Tubruq of Libya through Four Years Observations", *Middle-East Journal of Scientific Research (MEJSR)*, Vol. 23 Issue 11, pp. 2627-2632, 2015.
- 11-A. H. Hassan, I. A. Issa, M. Mousa and **Yasser A. Abdel-Hadi**, "Naked Eye Determination of the Beginning of Twilight for Sinai and Assuit of Egypt", submitted to *the Fourth Arab Conference on Astronomy and Geophysics (ACAG-4)*, October 20 – 23, 2014, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, published in *NRIAG Journal of Astronomy and Astrophysics*, *NRIAG Journal of Astronomy and Astrophysics* (2014), Volume 5, pp. 9 – 15, March 2016.
- 12-A. Ghitas, A. Abulwfa and **Yasser A. Abdel-Hadi**, "An Assessment of Wind Energy Potential as a Power Generation Source in Helwan", submitted to *the 7th Annual Conference of the Future Study Center (New and Renewable Energy Future in the Arab World)*, 12<sup>th</sup> – 14<sup>th</sup> February 2013, Center of Future Studies, Assiut University, Assiut, Egypt, *Future Studies*, Published in *Journal of Clean Energy Technologies*, Vol. 4, No. 6, November 2016.
- 13-H. Farouk, R. H. Hamid, **Yasser A. Abdel-Hadi** and A. Abulwfa, "Ozone and Aerosol Index as radiation amplification factor of UV index over Egypt based on satellite data in period (1979-2005)", *International Journal of Engineering Science Invention*, ISSN (Print): 2319 – 6726, Vol. 4, Issue 12, pp. 15 – 19, December 2015.
- 14-**Yasser A. Abdel-Hadi**, A. Ghitas, A. Abulwfa and M. Sabry "Simulation Model of a New Solar Laser System of Fresnel Lens According to Real Observed Solar Radiation Data in Helwan of Egypt", submitted to *the Fourth Arab Conference on Astronomy and Geophysics (ACAG-4)*, October 20 – 23, 2014, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, published in *NRIAG Journal of Astronomy and Astrophysics*, Vol. 4, pp. 249 – 255, 2015.
- 15-**Yasser A. Abdel-Hadi**, "New Trends in the Application of Solar Pumped Laser Systems", Review Article, Submitted to the library of the National Research Institute of Astronomy and Geophysics (NRIAG), 2014.

- 16- A. H. Hassan, **Yasser A. Abdel-Hadi**, I. A. Issa and N.Y. Hassanin, "Naked Eye Observations for Morning Twilight at Different Sites in Egypt", *NRJAG Journal of Astronomy and Astrophysics* (2013), *NRIAG Journal of Astronomy and Astrophysics* (2014), Volume 3, Issue 1, pp. 23–26, June 2014.
- 17- A. H. Hassan, **Yasser A. Abdel-Hadi**, I. A. Issa and N. Y. Hassanin, "Brightness and Color Variation for Evening and Morning Twilight at Bahria of Egypt IV", *NRIAG Journal of Astronomy and Astrophysics* (2014), Volume 3, Issue 1, pp. 37–45, June 2014.
- 18- M. Sabry, **Yasser A. Abdel-Hadi** and A. Ghitass, "PV-Integrated CPC for Transparent Façades", *Energy and Buildings*, *Energy and Buildings* (2013), Vol. 66, pp. 480 - 484.
- 19- J. Almeida, D. Liang, E. Guillot and **Y. Abdel-Hadi**, "40 W cw Nd:YAG Solar Laser Pumped through a Heliostat – Parabolic Mirror System", *Laser Physics*, (2013), Vol. 23, No. 6, 065801. doi:10.1088/1054-660X/23/6/065801.
- 20- A. H. Hassan, N. Y. Hassanin, **Yasser A. Abdel-Hadi** and I. A. Issa, "Time Verification of Twilight Begin and End at Matrouh of Egypt", *Third Arab Conference on Astronomy and Geophysics (ACAG-3)*, October 8 – 11, 2012, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, Published in *NRJAG Journal of Astronomy and Astrophysics*, Vol. 2, pp. 45 – 53, 2013.
- 21- **Yasser A. Abdel-Hadi**, "Simulation Model of a New Solar Pumped Laser System of Fresnel Lens in Helwan of Egypt", *Third Arab Conference on Astronomy and Geophysics (ACAG-3)*, October 8 – 11, 2012, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, Published in *NRJAG Journal of Astronomy and Astrophysics*, Vol. 1, pp. 195 – 198, 2012.
- 22- I. A. Issa, N. Y. Hassanin, A. H. Hassan, and **Yasser A. Abdel-Hadi**, "Atmospheric Transperency, Twilight Brightness and Color Indices at Kottamia of Egypt", *Second Arab Conference on Astronomy and Geophysics (ACAG-2)*, October 25 – 28, 2010, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, Published in *NRIAG Journal of Astronomy and Astrophysics* (Special Issue), pp. 379 – 398, ISSN 1687-0999, 2010.
- 23- Juan Antonio Belmonte, Mosalam Shaltout, Magdi Fekri and **Yasser A. Abdel-Hadi**, "Lighting the Temples, A Story of Discovery on Egyptian Archeoastronomy", An invited paper, The European Society for Astronomy in Culture 17th Annual Meeting, October 25 – 31, 2009, Bibliotheca Alexandrina, Alexandria, Egypt, Published by Bristish Archeological Reports (BAR).
- 24- A. H. Hassan, **Yasser A. Abdel-Hadi**, U. A. Rahoma and I. A. Issa, „Naked Eye Estimates of Morning Prayer at Tubruq of Libya“, The European Society for Astronomy in Culture 17th Annual Meeting, October 25 – 31, 2009, Bibliotheca

Alexandrina, Alexandria, Egypt, Published by Bristish Archeological Reports (BAR).

- 25- I. A. Issa, N. Y. Hassanin, A. H. Hassan, and **Yasser A. Abdel-Hadi**, „Verification of Al-Eshaa and Al-Fajr Prayer Times at Matrouh of Egypt”, The European Society for Astronomy in Culture 17th Annual Meeting, October 25 – 31, 2009, Bibliotheca Alexandrina, Alexandria, Egypt, Published by Bristish Archeological Reports (BAR).
- 26- Juan Antonio Belmonte, Magdi Fekri, **Yasser A. Abdel-Hadi**, Mosalam Shaltout and A. Cesar Gonzalez Garcia, „On the Orientation of the Ancient Egyptian Temples: (5) Testing the Theory in Middle Egypt and Sudan”, *Journal for History of Astronomy JHA*, xli, pp. 65 – 93, 2010.
- 27- Hamdy K. Elminir, Hala S. Own, **Yasser A. Abdel-Hadi** and A. M. Fathy, “Adaptation of Wavelet Features to Predict the Local Noon Erythemat Ultraviolet Irradiance”, *International Journal of Computational Intelligence Research*, ISSN 0974 – 1259, Vol.4, No. 3, pp. 273 - 280, 2008.
- 28- Yasser A. Abdel-Hadi and Maha Yehia, “Astronomical Interpretation of the Winding Canal in the Pyramid Texts”, submitted to *the First Arab Conference on Astronomy and Geophysics (ACAG-1)*, October 20 – 22, 2008, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, Published in *NRIAG Journal of Astronomy and Astrophysics* (Special Issue), pp. 317 – 340, ISSN 1687-0980, 2008.
- 29- M. A. Mosalam Shaltout and **Yasser A. Abdel-Hadi**, “The Orientation of the Great Temple of Abu Simbel (Seasonally, Astronomically or Topographically)”, submitted to *the First Arab Conference on Astronomy and Geophysics (ACAG-1)*, October 20 – 22, 2008, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt.
- 30- **Yasser A. Abdel-Hadi**, Afaf M. Abdel-Hameed and O. M. Hamdy, “Comparative Study for Some Photovoltaic Cells Used in Satellite Solar Panels”, submitted to *the First Arab Conference on Astronomy and Geophysics (ACAG-1)*, October 20 – 22, 2008, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, Published in *NRIAG Journal of Astronomy and Astrophysics* (Special Issue), pp. 303 – 316, ISSN 1687-0980, 2008.
- 31- **Yasser A. Abdel-Hadi** and A. Ding, “Unconventional Optical Concentration Devices for Solar-pumped Solid State Lasers”, submitted to *the First Arab Conference on Astronomy and Geophysics (ACAG-1)*, October 20 – 22, 2008, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, Published in *NRIAG Journal of Astronomy and Astrophysics* (Special Issue), pp. 287 – 301, ISSN 1687-0980, 2008.
- 32- **Yasser A. Abdel-Hadi** and A. Ding, “New Optical Concentration Devices for Solar-Pumped Solid State Lasers”, Proc. of the *Fifth International Conference*

*on Informatics and Systems (INFOS 2007)*, pp. 331 – 338, March 24 – 26, 2007, Cairo, Egypt.

- 33- **Yasser A. Abdel-Hadi**, A. Ding, N. Nüsse und P. Erichsen, "Focal Properties of Large Fresnel Lenses", *Verhandlung der Frühjahrstagung der Deutschen Physikalischen Gesellschaft (DPG)*, Teil. 3, s. 160, März 4 - 9, 2005, Technische Universität Berlin, Deutschland.
- 34- **Yasser A. Abdel-Hadi** und A. Ding, "Optische Konzentratoren für solargepumpte Table-Top-Laser", *Verhandlung der Frühjahrstagung der Deutschen Physikalischen Gesellschaft (DPG)*, Teil. 3, s. 160, März 4 - 9, 2005, Technische Universität Berlin, Deutschland (in deutscher Sprache).  
(Yasser A. Abdel-Hadi and A. Ding, „Optical Concentrators for Solar Pumped Table-Top Laser“, *Proc. of the Spring Meeting of the German Society of Physics (DPG)*, Vol. 3, pp. 160, March 4 - 9, 2005, Technical University of Berlin, Germany (in German language).
- 35- M. A. Mosalam Shaltout, Amir H. Hassan and **Y. A. Fattah Abdel-Hadi**, "Sun Perpendicularity on Abu Simbel Temple Phenomenon", *Meteorological and Geophysical Fluid Dynamics* (A book to commemorate the centenary of the birth of Hans Ertel), pp. 129 – 146, Collected and edited by Wilfried Schröder, Published by WP Druck & Verlag Darmstadt, ISSN: 1615-2824, 2004.
- 36- **Yasser A. Abdel-Hadi** und A. Ding, "Solargepumpter Table-Top Nd:YAG-Laser", *Verhandlung der Frühjahrstagung der Deutschen Physikalischen Gesellschaft (DPG)*, s. 116, März 24 - 28, 2003, Universität Hannover, Hannover, Deutschland (in deutscher Sprache).  
(Yasser A. Abdel-Hadi and A. Ding, „Solar pumped Table-Top Nd:YAG laser“, *Proc. of the Spring Meeting of the German Society of Physics (DPG)*, pp. 116, March 24 - 28, 2003, University of Hannover, Hannover, Germany (in German language).
- 37- **Yasser A. Abdel-Hadi** und A. Ding, "Kompakter Nd-YAG Laser kleiner und mittlerer Leistung direkt gepumpt durch Solarstrahlung", *Verhandlung der Frühjahrstagung der Deutschen Physikalischen Gesellschaft (DPG)*, s. 115 - 116, März 4 - 8, 2002, Universität Osnabrück, Osnabrück, Deutschland (in deutscher Sprache).  
(Yasser A. Abdel-Hadi and A. Ding, "Compacted Nd:YAG laser of small and medium power pumped directly through the solar radiation", *Proc. of the Spring Meeting of the German Society of Physics (DPG)*, pp. 115 - 116, March 4 - 8, 2002, University of Osnabrück, Osnabrück, Germany (in German language).
- 38- **Y. A. Hadi** et al., "A Model for Estimating the Level of Energy Gained from A Solar Cell Using An Optical Concentrator", *A report of the graduation project of a student for getting the B.Sc. degree*, Physics Department, Faculty of Science, Helwan University, Cairo, Egypt, May 1998.
- 39- **Y. A. Hadi** et al., "End Pumping Technique Model for Laser Pumped by Solar Energy", *Proc. of 4th IEEE International Conference on Electronics, Circuits,*

*and Systems (ICECS'97)*, Vol. 2, pp. 766 - 775, December 15 - 18, 1997, Cairo, Egypt.

- 40- **Y. A. Hadi** et al., "Side Pumping Technique Model for Laser Pumped by Solar Energy", Proc. of *4th International Conference for Solar Energy Storage and Applied Photochemistry (SOLAR'97)*, January 1 - 6, 1997, Cairo, Egypt, and Proc. *Indian Academy of Science (Chemical Science)*, Vol. 110, No. 3, pp. 335 - 349, June 1998.
- 41- **Y. A. Hadi** et al., "Model for Solar Concentrators to Increase Photovoltaic Performance", Proc. of *Forth World Congress on Renewable Energy*, Denver, Colorado, U.S.A., June 15 - 21, 1996, edited by A. Sayigh.
- 42- **Y. A. Hadi** et al., "Model for Solar Concentrators to Increase Photovoltaic Performance at Cairo, Egypt", Proc. of *Renewable Energy Conference and Workshop ASRE'96 (a combined conference with the Fourth Conference on Applications of Solar and Renewable Energy and the Second Conference on Solar Electricity: Photovoltaics and wind)*, pp. 167 - 183, April 14 - 18, 1996, Cairo, Egypt.
- 43- **Y. A. Fattah A. Hadi** et al., "Photovoltaic Performance Under Real Desert Condition of Hot Desert Climate Near Cairo", *Renewable Energy*, Vol. 6, No. 5 - 6, pp. 533 - 536, 1995, and Proc. of *First International Conference on Solar Electricity: Photovoltaic and Wind*, Cairo, Egypt, October 3 - 7, 1994.

## **Patents**

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- 1- **Yasser A. Abdel-Hadi** and A. Ding, "Arrangement and Procedure of Electro-mechanical Coupling for Positioning of Mirror-Array System for Solar Concentrator Systems", German Patent Office of Munich, 10 2006 037 345.5, August 2006.

## **Editor in Scientific Journals**

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- 1- Journal of Engineering Sciences – Springfield Publishers  
<https://springfieldpublishers.com/journal-of-engineering-sciences/editorial-board.php>

## **Reviewer in scientific Journals**

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- Applied Optics

- Solar Energy
- Journal of Solar Energy and Sustainable Development
- Solar Energy Materials and Solar Cells
- Optics and Laser Technology
- High Power Laser Science and Engineering
- International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE)
- Journal of Renewable and Sustainable Energy
- NRIAG Journal of Astronomy and Geophysics
- International Journal of Energy Research

### **Scientific Supervision**

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- 1- "The Astronomical Scenes in the Ancient Egyptian Temples of Greco-Roman Era under the Light of Recent Astronomy", M.Sc. Thesis of Ahmed Abbas, Faculty of Monuments, Luxor University, Luxor, Egypt (Under writing).
- 2- "Designing and Constructing a Solar Laser System at Helwan", M.Sc. Thesis of Ahmed El-Minawy, Department of Physics, Faculty of Science, Menofia University, Shebin El-Koum, Menofia, Egypt (Under writing).
- 3- "Developing A Spectral Model of UV Index over Egypt", Ph.D. Thesis of Ahmed Abul-Wafa, Department of Physics, Faculty of Science, Al-Azhar University, Cairo, Egypt (Under writing).
- 4- "Investigation of the Laser Beam Required for Generating Electric Power on Satellite's Solar Panels", M.Sc. Thesis of Ola Hamdy, Department of Laser Applications, National Institute of Laser Enhancement Sciences, Cairo University, Cairo Egypt (Under writing).
- 5- "An Assessment of Erythmal Ultraviolet Irradiance over Egypt", M.Sc. Thesis of Ahmed Abul-Wafa, Department of Physics, Faculty of Science, Al-Azhar University, Cairo, Egypt, Published in January 2013.
- 6- "Probe of Solar Faculae in Ca II Infra-Red Triplet Lines", M.Sc. Thesis of Basheir Marzoke, Department of Astronomy, Faculty of Science, Al-Azhar University, Cairo, Egypt, Published in December 2007.
- 7- "A Model for Estimating the Level of Energy Gained from A Solar Cell Using An Optical Concentrator", Report of the graduation project of a student

(Hani Mahfouz) for getting the B.Sc. degree, Physics Department, Faculty of Science, Helwan University, Cairo, Egypt, Published in May 1998.

### **Scientific Activities**

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- 1- Observing many Solar and Lunar Eclipses from the National Research Institute of Astronomy and Geophysics (NRIAG).
- 2- Observing the new moon of beginning the Hijry (Arab) months from many locations (Cairo, Helwan, Qena and Abu Rudeis).
- 3- Observing the Partial Solar Eclipse on August 11, 1999, from the National Research Institute of Astronomy and Geophysics (NRIAG).
- 4- Organizing the Spring Meeting of the German Society of Physics (DPG), March 4 - 9, 2005, Technical University of Berlin, Berlin, Germany.
- 5- Organizing the "Astronomy and Geophysics" session of the Fifth International Conference on Informatics and Systems (INFOS 2007), March 24 – 26, 2007 at the Faculty of Computer and Information, Cairo University, Cairo, Egypt.
- 6- Participation in the annual course of the Solar Research Laboratory in the National Research Institute of Astronomy and Geophysics (NRIAG).
- 7- Organizing the First Arab Conference of Astronomy and Geophysics (ACAG-1), October 20 – 22, 2008 at the National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt.
- 8- Participation in the 6<sup>th</sup> Egyptian-Spanish Archeoastronomy Mission in Egypt, organized by: Institute of Astrophysics of Canaria Island, National Research Institute of Astronomy and Geophysics (NRIAG) and Menofia University, December 13 – 22, 2008.
- 9- Organizing the 17<sup>th</sup> Annual Conference of European Society for Astronomy in Culture (SEAC), (SEAC 2009), October 25 – 31, 2009, at the Bibliotheca Alexandrina (BA), Alexandria, Egypt.
- 10- Constructing the automatic solar radiation station on October 3, 2010, in the Solar and Space Research Department at the National Research Institute of Astronomy and Geophysics (NRIAG).
- 11- Observing the Partial Solar Eclipse on January 4, 2011 from the National Research Institute of Astronomy and Geophysics (NRIAG).



- 12- Constructing the Concentrator System of a Solar Energy Project in the School of Science and Engineering at the American University in Cairo, January – May 2011.
- 13- Observing Venus-Transit over the Sun on June 6, 2012, from the National Research Institute of Astronomy and Geophysics (NRAIG).
- 14- Observing the Partial Solar Eclipse on November 3, 2013, from the National Research Institute of Astronomy and Geophysics (NRIAG).
- 15- Observing the Partial Solar Eclipse on March 20, 2015, from the National Research Institute of Astronomy and Geophysics (NRIAG).
- 16- Observing the Morning Twilight on August 16 – 20, 2015, from Qottamia Desert in Egypt.
- 17- Observing the Morning Twilight on September 16 – 19, 2015, from Qottamia Desert in Egypt.
- 18- Observing the Morning and Evening Twilights on November 18 – 22, 2015, from Abo Tartour of El-Kharga Desert in Egypt.
- 19- Observing Mercury-Transit over the Sun on May 9, 2016, from the National Research Institute of Astronomy and Geophysics (NRAIG).
- 20-Organizing and participating in the "Solar Concentrators and Solar Laser" workshop on the occasion of the fiftieth anniversary of generating the first solar laser, December 27, 2016, at the National Research Institute of Astronomy and Geophysics (NRIAG).
- 21- Constructing the Concentrator System in the Solar Energy Unit of the Solar Research Laboratory of the Solar and Space Research Department at the National Research Institute of Astronomy and Geophysics (NRIAG).
- 22- Observing the Partial Lunar Eclipse on August 7, 2017, from the National Research Institute of Astronomy and Geophysics (NRIAG).
- 23- Observing the Longest Total Lunar Eclipse in the 21<sup>st</sup> century on July 27 and 28, 2018, from the National Research Institute of Astronomy and Geophysics (NRIAG).
- 24-Observing the Total Lunar Eclipse on January 21<sup>st</sup>, 2019, from the National Research Institute of Astronomy and Geophysics (NRIAG).
- 25-Observing the Partial Lunar Eclipse on July 16<sup>th</sup>, 2019, from the National Research Institute of Astronomy and Geophysics (NRIAG).

- 26- Observing the Great Conjunction between Jupiter and Saturn on December 21<sup>st</sup>, 2020, from the National Research Institute of Astronomy and Geophysics (NRIAG).

### **Administrative works and activities**

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- 1- Organizing the Spring Meeting of the German Society of Physics (DPG), March 4 - 9, 2005, Technical University of Berlin, Germany.
- 2- Organizing the First Arab Conference in Astronomy and Geophysics (ACAG-1), October 20 – 22, 2008, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt.
- 3- Organizing the Solar Concentrators and Solar Laser Workshop, of the fiftieth anniversary of the generating the first solar laser, December 27, 2016, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt.
- 4- Staff member of the Solar Research Laboratory.
- 5- Staff member of the Solar and Space Research Department.
- 6- Member of the Media Committee of the National Research Institute of Astronomy and Geophysics (NRIAG), 2012 – 2013.
- 7- Member of the Intellectual Property Formation Committee of the National Research Institute of Astronomy and Geophysics (NRIAG), 2019 – 2020.
- 8- Head of the Media Committee of the National Research Institute of Astronomy and Geophysics (NRIAG), 2021 – Present.

### **Projects**

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- 1- Novel Nano-LiBr based Solar PVT Technology for Poly-generation (NoNSToP) Newton - Musharraf and the STDF of the Egyptian Academy of the Scientific Research and Technology.

### **Honoring and Rewards**

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- 1- Certificate of Appreciation from the National Research Institute of Astronomy and Geophysics (NRIAG), October 2008.
- 2- Certificate of Appreciation from the National Research Institute of Astronomy and Geophysics (NRIAG), the best oral presentation "Simulation Model of a New Solar Pumped Laser System of Fresnel Lens in Helwan of Egypt", *Third Arab Conference on Astronomy and Geophysics (ACAG-3)*, October 2012.

**Seminars**

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- 1- "National Research Institute of Astronomy and Geophysics (NRIAG)", Institute of Optics and Atomic Physics, Technical University of Berlin, Berlin, Germany, 13th August 2007.
- 2- "Development of Optical Concentrator Systems for Directly Solar Pumped Laser Systems", National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, 9<sup>th</sup> September 2007.
- 3- "Solar Concentrators and their Applications", National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, February 2008.
- 4- "Solar Laser – New Revolution", National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, February 2008.
- 5- "Solar Heaters" National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, February 2008.
- 6- "Energy-Saving-Based Buildings as a Recommended Solution for the New Architecture" – "Energy Saving in Architecture, Town and Townscape in Europe, Asia and Africa", Faculty of Civil Engineering, Opole University of Technology (Politechnika Opolska), Opole, Poland, 9<sup>th</sup> December 2009.
- 7- "Flat Plate Collectors and Solar Heaters" National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, January 2011.
- 8- "Solar Concentrators and their Applications", National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, January 2011.
- 9- "Solar Laser and its Applications", Symposium of Solar and Space Research Department of the National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, March 2014.
- 10- "Laser Beam from Solar Energy - Egypt on the Way", Renewable Energy Challenges and Opportunities in Egypt (RECO), Academy of Scientific Research and Technology, Cairo, Egypt, May 2014.
- 11- "50 Years Solar Laser", National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, December 2016.
- 12- "Astronomy in the Service of the Religion", Symposium of Ramadan Crescent, National Research Institute of Astronomy and Geophysics (NRIAG), Helwan, Cairo, Egypt, May 6, 2018.

**Scientific Missions in Abroad**

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- 1- Invitation from Institute of Materials Sciences of Scientific and Production Association "Physics-Sun" of Uzbekistan Academy of Sciences (IM of SPA "Physics-Sun" of AS of Uzbekistan), Parkent, Uzbekistan, 22<sup>nd</sup> May 2015.
- 2- Scientific Mission from the National Research Institute of Astronomy and Geophysics (NRIAG), Specialized Design-Engineering Technological Bureau at the Institute of Ion-Plasma and Laser Technologies of Uzbekistan Academy of Sciences (SDTB at IIPLT of AS of Uzbekistan), Taskent, Uzbekistan, May 20 – 31, 2015.
- 3- Scientific Mission from the National Research Institute of Astronomy and Geophysics (NRIAG), Universidade Nova de Lisboa (New University of Lisbon), Faculdade de Ciencias e Tecnologia (Faculty of Science and Technology), Department of Physics, Lisbon, Portugal, June 15 – 29, 2012.
- 4- DFG Postdoctoral Fellowship, Technical University of Berlin, Institute of Optics, Berlin, Germany, from 10<sup>th</sup> May 2011 to 31<sup>st</sup> July 2011.
- 5- Invitation from Faculty of Civil Engineering, Opole University of Technology (Politechnika Opolska), Opole, Poland, Seminar titled "Energy-Saving-Based Buildings as a Recommended Solution for the New Architecture" – "Energy Saving in Architecture, Town and Townscape in Europe, Asia and Africa", 9<sup>th</sup> December 2009.
- 6- DAAD Re-invitation, Scientific Cooperation, Technical University of Berlin, Institute of Optics, Berlin, Germany, from 3<sup>rd</sup> November 2009 to 31<sup>st</sup> January 2010.
- 7- Scientific Mission from the National Research Institute of Astronomy and Geophysics (NRIAG), Scientific Cooperation in the frame of Egyptian-German Year of Science and Technology 2007, Technical University of Berlin, Institute of Optics, Berlin, Germany, August 4 – 18, 2007.
- 8- DAAD Scholarship, Ph.D. work, Technical University of Berlin, Institute of Optics, Berlin, Germany, from 1<sup>st</sup> April 2000 to 31<sup>st</sup> March 2004.
- 9- DAAD Scholarship, Course of German Language, Goethe Institute, Göttingen, Germany, from 3<sup>rd</sup> October 1999 to 31<sup>st</sup> March 2000.