

**Salah Eldin Ibrahim Hassab Elnaby****Phone:** +201111353602**Email:** selnaby@niles.edu.eg**ORCID ID:** <https://orcid.org/0000-0003-1778-0632>**Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=13806525200>**CU Scholar:** <https://scholar.cu.edu.eg/?q=hassab/node/102268>**EXPERTISE**

Laser remote sensing (DIAL and Raman LIDAR), Nonlinear optics, Fiber laser and amplifier

UNIVERSITY EDUCATION

- BSc. in Electrical Engineering, from Military Technical College 1970.
- MSc. in Laser Physics, Technical University, Prague, Czechoslovakia, 1975.
- PhD. in Laser remote sensing of air pollution using resonance Raman Spectroscopy. Ecole Polytechnique and University of Paris 11, Paris France.

POSITIONS:

- Director of Laser Technology Center, NILES, Cairo University
- Emeritus Prof. at NILES
- Vice minister of culture for foreign cultural relations (2007-2008)
- President and CEO of sound and light company (1997-2006)
- Associate Prof. at NILES (1994-1997)
- Assistant Prof. of physics in the Military Technical College (1980-1992)

AWARDS:

Award of Best Research in the Army

MEMBERSHIPS:

Secretary of the Egyptian Topical Society of Laser

RECENT PUBLICATIONS

Peer reviewed (ISI) Journals

- 2024**
1. Ibrahim Abdelhalim, Aziza Ahmed Hassan, Salwa Abdelkawi, Salah Hassab Elnaby, Sahar Rahbar, Omnia Hamdy, ‘Solid-state laser (266 nm) as an alternative to ArF excimer laser (193 nm) for corneal reshaping: Comparative numerical study of the thermal effect’, *International Journal for Numerical Methods in Biomedical Engineering*, 40 (10), e3861.
 2. Ibrahim Abdelhalim, Aziza Ahmed Hassan, Salwa Abdelkawi, Salah Hassab Elnaby, Omnia Hamdy, ‘A modified flying-spot laser eye-surgery platform for hyperopic correction’, *Optical and Quantum Electronics* 56(7), 1268.
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- 2023**
3. Ibrahim Abdelhalim, Omnia Hamdy, Aziza Ahmed Hassan, Salwa Abdelkawi, Salah Hassab Elnaby ‘A modified model for laser-cornea interaction following the ablation effect in the laser eye-surgery’, *Beni-Suef University Journal of Basic and Applied Sciences* 12 (1), 101.
 4. Ibrahim Abdelhalim, Omnia Hamdy, Mohamed A Khattab, Salwa Abdelkawi, Salah Hassab Elnaby, Aziza Ahmed Hassan, ‘Evaluating the efficacy of Nd: YAG fourth harmonic (266 nm) in comparison with ArF excimer (193 nm) in laser corneal reshaping: ex vivo pilot study’, *International Ophthalmology* 43 (9), 3087-3096.
 5. Salah, A., Hassab-Elnaby, S. & Ramadan, M.A. Boosting the nonlinear optical absorption of graphene oxide, and gold nanorods by tailoring graphene oxide-gold nanorods hybrids. *SN Appl. Sci.* 5, 288. <https://doi.org/10.1007/s42452-023-05507-4>.
 6. Helayl, S., Hassab-Elnaby, S., Badr, Y. et al. Nonlinear optical absorption and optical limiting of magnetic iron oxide nanomaterials. *SN Appl. Sci.* 5, 229 (2023). <https://doi.org/10.1007/s42452-023-05449-x>
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- 2022**
7. Doaa Youssef, Salah Hassab-Elnaby, Samar Reda Al-Sayed, New 3D model for accurate prediction of thermal and microstructure evolution of laser powder cladding of Ti6Al4V alloy, *Alexandria Engineering Journal*, Volume 61, Issue 5.
 8. Abo-elenein, M.H.; Hassab Elnaby, S.E.I.; Hassan, A.F.; Abd-Rabou, A.M. Modeling for Generating Femtosecond Pulses in an Er-Doped Fiber Using Externally Controlled Spectral Broadening and Compression Mechanisms. *Photonics*, 9, 205. <https://doi.org/10.3390/photonics9040205>.
 9. El-Dakrory, Y., Sliem, M., Abdelkreem, M., Hassab Elnaby, S., & Rezk, R. Laser induced fluorescence detection of R6G dye adsorbed on Fe3O4 nanomaterials. *Journal of Applied Water Engineering and Research*, 10(4), 322–331. <https://doi.org/10.1080/23249676.2021.2017805>
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- 2021**
10. Ibrahim Abdelhalim, Omnia Hamdy, Aziza Ahmed Hassan, Salah Hassab Elnaby, ‘Nd: YAG fourth harmonic (266-nm) generation for corneal reshaping procedure: an ex-vivo experimental study’, *Plos one* 16 (11), e0260494.
 11. Ibrahim Abdelhalim, Omnia Hamdy, Aziza Ahmed Hassan, Salah Hassab Elnaby, ‘Assessing the local temperature of human cornea exposed to surface ablation by different laser refractive-surgery devices: a numerical comparative study’, *Lasers in Medical Science* 36 (8), 1725-1731.
 12. Ibrahim Abdelhalim, Omnia Hamdy, Aziza Ahmed Hassan, Salah Hassab Elnaby, ‘Dependence of the heating effect on tissue absorption coefficient during corneal reshaping using different UV lasers: A numerical study’, *Physical and Engineering Sciences in Medicine* 44, 221-227.
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