

# S a m a a I m a m M a h m o u d E l - D e k

## S . I . E l - D e k

Prof. Physics - Materials Science and Nanotechnology

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### Current Position



-Vice-dean of Environmental development and Community services at faculty of postgraduate studies for advanced sciences (PSAS), Beni-Suef University, Beni-Suef, Egypt

-Director of The International Ranking and Sustainable development office, Beni-Suef University, Beni-Suef, Egypt

### Positions

### المناصب و عضويه مجالس اداره

- Vice-dean of postgraduate and research affairs at Faculty of postgraduate studies for advanced sciences (PSAS), Beni-Suef University, Beni-Suef, Egypt (2018-2020).

*-Head of Materials Science and Nanotechnology Department at Faculty of postgraduate studies for advanced sciences (PSAS), Beni-Suef University, Beni-Suef, Egypt (2015-2019)*

*-Director of the central laboratory at Faculty of postgraduate studies for advanced sciences (PSAS), Beni-Suef University, Beni-Suef, Egypt (from Dec to July 2016)*

*-Co-director of the international publication Unit, (from Dec to July 2016), Beni-Suef University, Beni-Suef, Egypt*

- Director of The International Ranking and Sustainable development office, Beni-Suef Uni. (from 2016 until now)

*-Scientific Consultant of the MIU president*

### L a n g u a g e s

Excellent French

Excellent English and Fair German

**Diplôme De L'alliance Française** -1992

**Diplôme De Secrétariat**- Chambre De Commerce et d'industrie De Paris 1992

**Diplôme De Tourisme et Hôtellerie** - Chambre De Commerce et d'industrie De Paris 1993

**Diplôme De Français Scientifique et Technique**- Chambre De Commerce et d'industrie De Paris 1995

**B.Sc. in Physics**, Special Physics, Faculty of Science, Cairo University, grade GOOD, (May 1997).

**M.Sc. in Physics**, Faculty of Science, Cairo University, (December 2001).

Title of the thesis" Electrical Properties of Mg-Ti ferrite Doped with rare earth".

**Ph.D. in Physics**, Faculty of Science, Cairo University, (May 2006).

Title of the thesis" Transport and Magnetic Properties of some Compounds with Perovskite Structure".

**Ass. Prof. in Physics** at December 2014

**Professor of Physics**- materials science at December 2020

(Interdisciplinary Research Excellence Course at September-December 2020) from Knowledge E, Australian National University, EKB.

(Advanced Interdisciplinary Research Excellence Course at April 2021-August2021) from Knowledge E, Australian National University, EKB.

(Teaching excellence in Physics, from ASRT, Knowledge E, EKB, IOP, October-March 2022

(Advanced Teaching excellence in Physics, from ASRT, Knowledge E, EKB, IOP, June- 2022

## Publications

مساهمه البحوث في خدمه المجتمع وابحاث ذات مردود  
اقتصادي

125 papers published in International journals indexed in scopus and Clarivate.

10 Papers in Water  
treatment

15 Papers in energy  
applications

5 Paper in cancer  
treatment

95 Paper in nanomaterials  
synthesis, physical  
properties and  
characterization

- National patent office (ASRT) approved, entitled by Ultrafast and Scalable Purification of Graphene Oxide Colloid and Miscellaneous Colloids Using a Novel Setup Including hollow fibers dialyzer.
- **Total number of publications= 110, citations= 2119, h -index 27 (scopus@19-5-2022)**

### Professional memberships

### عضويه مجالس لجان علميه

- Member of the Egyptian Society of Materials Research.
- Member of the Egyptian Society of Polymer Science and Technology.
- Member of the African economic council.
- Member of the Topical society of laser science.
- Member of the Inventor technology association.
- Member of the board of the Central Laboratory at faculty of postgraduate studies for advanced sciences (PSAS), Beni-Suef University, Beni-Suef, Egypt.
- Member of the University Performance Development centre, Beni-Suef University, Beni-Suef, Egypt.
- Member in the committee of development of Physics courses, Basic Science Sector Committee.
- Member of the Awards committee at Beni-Suef University, Beni-Suef, Egypt.
- Member of the National Nanotechnology Network - the Academy of Scientific Research, ASRT.
- Member and representative of the University in the National Committee for International ranking at the Ministry of Higher Education.
- Member and representative of the University in the National Committee for sustainable development and governance.
- Member of Faculty Council at faculty of postgraduate studies for advanced sciences (PSAS), Beni-Suef University, Beni-Suef, Egypt. as Vice-dean of postgraduate and research affairs.
- Member and University representative at SDSN (sustainable development solutions network#UN)
- Member of the Arab Physical Society

### Work experience

**Scientific consultant at Misr International University (MIU)**  
**Teaching Metallurgy for 4<sup>th</sup>-year students, faculty of earth sciences, BSU**

**[2018- now]**  
**[2020]**

Teaching materials science, crystallography, magnetism ordered substances for Premaster students at PSAS, BSU	[2018-now]
Teaching (nanoscience and nanotechnology-)for Pre-master and Ph.D. students at Faculty of Engineering –Benha University	[2016-2018]
Teaching Scientific Writing-Ethics-Plagiarism at BSU	[2015-2016]
Teaching at PSAS, Beni-Suef Uni, Materials science Semi-conductor nanostructures, thin film technology Nanobiomedicine: Biomedical applications of nanomaterials	[2014-now]
Secretary of the promotion committee of Physics	[2010-2015]
Teaching physics in Faculty of computer science in Arab Open University [AOU]- Nasr city	[2010-2011]
building and designing new experiments in the communication lab (fiber optics) for 3 <sup>rd</sup> , 4 <sup>th</sup> year, teaching in the communication lab, and composing the experiments sheet and book.	[2008-2010]
Researcher in Materials Science Lab. (1), Physics Dept., Faculty of Science, Cairo University, Giza, Egypt.	[2003-2014]
Teaching Experimental Physics for 1 <sup>st</sup> , 2 <sup>nd</sup> years and Computer Labs (virtual labs) Physics Dept., Faculty of Science, Cairo University, Giza, Egypt.	
Teaching Experimental Physics for 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , and 4 <sup>th</sup> -year Physics Dept., Faculty of Science, Cairo University, Giza, Egypt	[2003-2007]
Teaching Experimental Physics for 1 <sup>st</sup> and 3 <sup>rd</sup> year at Physics Dept., Faculty of Science, Cairo University, Fayoum Branch	[2000-2003]
Teaching Experimental Physics for 1 <sup>st</sup> and 2 <sup>nd</sup> -year Faculty of Dentistry- 6 October University	[1999-2000]
Teacher of Science for Preparatory cycle and Physics for 1 <sup>st</sup> and 3 <sup>rd</sup> Secondary, Faculty of Artificial learning-	[1998-1999]
Delta Language School- 6 October City -Giza	[1997-2000]

## Conferences

## انجازات في مصلحة المجتمع العلمي

Conference	Date	Role	Location
The Fourth International Conference (Science, Development, and Environment)	March-2001	Participation (with one paper)	Al-Azhar University
The International Conference of Materials Science and Technology	April 2001	Participation (with one paper)	Cairo University, Beni-Suef Branch.

<b>The International Conference of Advanced Vibrational Spectroscopy</b>	August 2001	Participation (with one accepted paper)	Turku, Finland
<b>The Fifth International Conference (Science, Development, and Environment)</b>	March 2003	Participation (with one paper)	Al-Azhar University
<b>The first annual conference on environmental risk management under modern technological aspects</b>	November 2004	Participation (with two papers)	Modern Academy
<b>The First Conference of the Scientific organizations in Cairo University (University Students making Future)</b>	April 2005	Organizer	Cairo University
<b>The Second Conference of the scientific organizations in Cairo University (University Students towards Scientific Research)</b>	March 2006	Organizer	Cairo University
<b>The Third Conference of the Scientific organizations in Cairo University (University Students thinking mind and hand working)</b>	April 2007	Organizer	Cairo University
<b>The Third International Conference of Modern Trends in Physics Research (MTPR-08)</b>	April 2008	Participation (with two papers)	Cairo University
<b>The fourth International Conference of Modern Trends in Physics Research (MTPR-010)</b>	December-2010	Participation (with two papers)	Cairo University
<b>The 3<sup>rd</sup> International conference of advanced sciences (ICAASIII)</b>	Nov2015	Participation (with two papers) and session chairman	Hurghada
<b>The 4<sup>th</sup> international conference of advanced sciences (ICAS4)</b>	7-10 Nov2017	Participation (with three papers)	Hurghada
<b>The International conference, NanoPorto, INL</b>	Februray2016	Participation (with one paper)	Portugal
<b>The 5<sup>th</sup> international conference of advanced sciences (ICAS5)</b>	November 2019	Organizer & Co-Chairman	Hurghada-Egypt
<b>The international conference “Environmental Pollution risks in developing countries”</b>	March 2020	Scientific committee member	Beni-Suef University, Egypt
<b>Meeting of Africa University Presidents (Sustainable Development Solution network SDSN)</b>	10 March 2022	Attendance University representative	Online
<b>1<sup>st</sup> forum of Sustainable Development and governance</b>	30 March 2022	Member and attendant, University representative	Ramses Hilton, Cairo, Egypt

## Training Courses & Work shops

Workshops	Date	Role	Location
The 3rd workshop of the ENNN	March 2016	participant	Sharm- elsheik, Egypt
Workshop on How to write aproposal	March 2016	Organizer and Speaker	Faculty of Postgraduate studies for advanced sciences, Beni-Suef University
Workshop on how to avoid Plagiarism	May 2016	Organizer and Speaker	Faculty of Postgraduate studies for advanced sciences, Beni-Suef University
Workshop of Newton Mosharafa Calls	May 2016	participant	the British council, Egypt
Workshop on nanomaterials production ( Production Scale)	October 2016	Speaker	Cairo University
Ranking-BSU	July 2016	Speaker	the BSU council
Training Course in the International ranking of the universities-organized by the Arab Universities Union	October 2016	Speaker	Cairo University
Training Course of DAAD:competitive proposal writing	November 2016	Speaker	Beni-Suef University
the workshop on nanomaterials production (Production Scale)	October 2017	Speaker	at CMRDI
workshop on Engineering Village organized by Elsevier	September 2017	Speaker	PSAS- Beni-Suef University
the Academy for Research Methodology organized by Nature Reaserch Academy	October 2017	Speaker	Beni-Suef University
the International Workshop (Recent trends in nanotechnology)	5 Nov.2017	Speaker	Held at Beni-Suef University

workshops organized by EKB started at the ministry of higher education	the period September-December 2017	Attended	Beni-Suef University
Completion of the Data collection Master Class organized by Knowledge	24 September 2017	Attended	Cairo
the master class course (citation Analysis Master class) held at CWST- Leiden	27-29 November 2017	Attended	The Netherlands
Sciences of higher education	19 march 2018	Speaker	King Abdul Aziz University, Jeddah Saudi Arabia
the “QS Ranking Roadshows workshop		Attended	Ain Shams University
The New trends in Research Dissemination	16 April 2018	Attended	the ministry of higher education-Cairo
“Nanotechnology: future and challenges”	4-5 September 2018	Attended	nature at PSAS- Beni-Suef University, Egypt
workshop (Publications in the biomedical field) in collaboration	4 October 2018	Attended	Beni-Suef University
the training organized by EKB- QS	9, 10 December 2018	Attended	at the ministry of higher education
the Master class in Scientific writing and publishing organized by Nature with EKB	November 2018	Attended	Beni-Suef University
workshop organized by EKB- Elsevier on “THE impact ranking”	17 January 2019	Attended	at the ministry of higher education
“Nanotechnology: future and challenges”	12 February 2019	Attended	PSAS- Beni-Suef University, Egypt
one day workshop on international publication with IOP- EKB	26 March 2019	Attended	PSAS- Beni-Suef University, Egypt

Intensive masterclass, Nature master class, Scientific Writing,	9-10 October 2019	Speaker	PSAS, BSU, Egypt.
“Emergent Materials: Concepts, Methodologies and Future Applications Workshop” of the Arab-German Young Academy of Sciences and Humanities (AGYA)	5-7 November 2019	Attended	ASRT, Cairo, Egypt.
Scientific committee member, attending the international conference “Environmental Pollution risks in developing countries”	3-4 March 2020	Attended	Beni-Suef University, Egypt
Workshop on Advanced Materials for Sustainable Development (CMRDI)	16 June 2021	Chairman	CMRDI, Cairo, Egypt
<b>State of the Art curriculum workshop (AUC-Alex-COE water-USAID)</b>	27-28 June 2022	Attendant	Alexandria, Egypt
<b>Info Session COE Water</b>	3 August 2022	Organizer, coordinator	PSAS, Egypt

## Plenary Lectures and Talks

## انجازات في مصلحه المجتمع العلمي

- ❖ Overview on M.Sc. and Ph.D. Work in Physics Dept., faculty of Science, Cairo University, Giza, Egypt, October-2007
- ❖ Participation by a plenary lecture entitled "functional materials: synthesis and properties" in the materials science workshop- Sohag University- November 2008- organized by the TEMPUS project.
- ❖ Participation by a plenary lecture entitled "functional Multiferroics: synthesis and properties" in Faculty of science Tanta University- May 2011.



- ❖ Participation by a plenary lecture entitled "How to write Research paper" in the workshop on "Nanotechnology" organized by the inventor association at Cairo University-July 2012.
- ❖ Participation by a plenary lecture entitled "Biomedical applications of nanomaterials" in the workshop on "Nanotechnology" organized by the inventor association at Cairo University -July 2012.
- ❖ Participation by a plenary lecture entitled "How to write Research paper in the training course on "Nanotechnology" organized by the Syndicate of scientific professions 2012
- ❖ Participation by a plenary lecture entitled "Biomedical applications of nanomaterials" in the training course on "Nanotechnology" organized by the Syndicate of scientific professions 2012
- ❖ Participation by a plenary lecture entitled "Biomedical applications of nanomaterials" in the training course on "Nanotechnology" organized by the Animal health research institute (June2012)
- ❖ Participation by a plenary lecture entitled "Biomedical applications of nanomaterials" in the workshop of nanobiotechnology held at Faculty of Post graduate studies for advanced sciences, Beni-Suef University, Beni-Suef, Egypt. March 2015
- ❖ Organization of a work shop (scientific thinking and planning), held at Faculty of Post graduate studies for advanced sciences, Beni-Suef University, Beni-Suef, Egypt. March 2015
- ❖ Plenary lecture” Nanomaterials; fabrication , characterization and biomedical applications” – 1<sup>st</sup> International conference of pharmacy- Health between Nutrition and Treatment-, Beni-Suef University, Beni-Suef, Egypt. 30 August 2015
- ❖ Plenary lecture “Nanovaccinology” Veterinary Serum and Vaccine Research Institute, Cairo, Egypt, 2 September 2015
- ❖ Organizing the 1<sup>st</sup> postgraduate student forum, Materials science and Nano.Dept. Faculty of Postgraduate studies for advanced sciences, Beni-Suef University, Beni-Suef, Egypt, 3 October 2015
- ❖ Participation by a plenary lecture entitled " nanomaterials and their biological applications" in the 1<sup>st</sup> Int. workshop of “recent advances on nanomaterials” held at Faculty of Post graduate studies for advanced sciences, Beni-Suef University, Beni-Suef, Egypt. 21-23 Nov2015

- ❖ Participation by a plenary lecture entitled” Functional materials” at the 1<sup>st</sup> Int.workshop of the Egyptian National Nanotechnology Network,Defining priorities for research cooperation between Egypt and India in Nanotechnology, ASRT-Egypt, 16-17 Nov.2015.
- ❖ Participation by a plenary lecture entitled” Multifunctional materials” at the the workshop organized by Physics Commit- (IUPAP) ASRT held at Faculty of Post graduate studies for advanced sciences, Beni-Suef University, Beni-Suef, Egypt. 17-12-2015
- ❖ Participation by a plenary lecture entitled” Nanotechnolgy” at Fayoum University in a Student conference (21-8-2016)
- ❖ Participation by a plenary lecture in The Scientific research development at Beni-Suef University, 6 September 2016
- ❖ Participation by a plenary lecture entitled” Academic publishing and Ethics” PSAS Beni-Suef University, Beni-Suef, 10-2-2018
- ❖ Participation by a plenary lecture entitled” perovskite: multifunctional and more” in the internatioanl training course on nanotechnology held at PSAS, BSU 4-6 September 2018 in collaboration with EKB- Nano. Nature (springer-nature)
- ❖ Participation by 2 plenary lectures “Simple preparation of nanomaterials” and “Applications of nanotechnology in medicine “ in the international conference in oncology (Bridging gaps in oncology-BGO) held at Intercontinental city stars organized by the National cancer institute 7-9 December 2018
- ❖ Participation by a plenary lecture “Magnetic materials from micro to nano” in the 1<sup>st</sup> workshop (Nanomaterials for environmental and biomedical applications) held at the faculty of education- Ain shams Unieivsrity 30 December 2019
- ❖ 4 days intensive course on (scientific thinking- Writing an international article- how to publish in indexed journals- -plagiarism ranking of universities) 6-9 March 2019 Ain Sokhna- Egypt
- ❖ Participation by a lecture “BSU-water researches” at AUC in the kick off meeting (25-27 March 2019) Centre of Excellence in Water Research, AUC, Egypt
- ❖ Participation in 2 plenary lectures “Simple preparation of nanomaterials” and “Applications of nanotechnology in medicine “in the National cancer institute 2 May 2019
- ❖ Heading info session on “Egypt vision 2030, SDS-towards Sustainable development goals- how to organize the research plan” At the faculty of Science, Faculty of Engineering, BSU, Egypt, December 2019

- ❖ Participation by a lecture “Cairo water Week” at Cairo University (24-28 October 2021) Centre of Excellence in Water Research, Egypt
- ❖ Examiner for the introductory exhibition for the International Science and Engineering Competition for STEM students.
- ❖ Monthly workshops and training courses on publication, university ranking, social users,clarivate analytics held online at the ASRT, organized by EKB, and knowledge
- ❖ QS World ranking lecture, EKB-QS, 28 June2022

## Reviewer

اشترك في هيئات التحكيم في دورات علميه (رسائل -مشروعات بحثيه)

- Reviewer in J.Alloys and compounds, J.Mag.Mag.Mat., JPhys.D:appl.Phys, MaterialsResearch Bulletin (Elsevier)
  - Nano-Microletters- Desalination and water treatment (springer)-
  - Ultrasonics Sonochemistry-Applied Nanoscience- JRE [\(total number of Reviews= 65 articles\)](#)
- Thesis reviewer at Benha University- Faculty of science-Phys.Dept.-2017
- Thesis reviewer at Helwan University- Faculty of engineering- Power-2015
- Judge in the FIRST LEGO League (FLL) Egypt's Championship, on April 2017, at TIEC premises, in Smart Village, under the auspices of the Ministry of Communications and Information Technology (MCIT) and the Ministry of Education.
- <https://publons.com/researcher/502921/si-el-dek>
- Reviewer for 22 projects at STDF
- Panel Discussion Member at STDF
- Reviewer for the Regular Fondecyt National Projects Competition 2021 project entitled” Double-wall magnetic nanotubes: a new alternative to avoid bacteria and virus infections? December 2020
- Supervisor for more than 50 M.Sc. and Ph.d
- Guest editor of 2 special issues in J. of nanomaterials (Nanomagnetism-multifunctional nanoparticles: from fabrication to application)
- Editorial member in Applied Chemical Engineering
- Editor in IOP conference series:materials science and engineering 464 (2018) (ICAS4) – (ICAS5-2020)
- Reviewing Editor at Frontiers in Materials
- Editor of special topic at Frontiers in nanotechnology

## Volunteer experience

انجازات في خدمه المجتمع و دعم المراه

-Kawafel Cairo University for the years from 2004 up to 2007. "See the certificates"

-Providing psychological and moral support for women in universities and centers about breast cancer, and honoring women leaders.

## Projects

مشروعات بحثية ممولة و انشاء مراكز التميز

N	Title	Funding agency	role	Fund
1	Preparation, Characterization and Examination of some nanomaterial as free radicals scavengers"	STDF funded, RSTDG 5431- Ended	Co-PI	100,000 EGP
2	Preparation and characterization of nanoparticles and study of their antibacterial effect	BSU	Supervisor	15,000 EGP
3	Nanocomposite Zinc oxide and curcumin for treatment of diabetes	NRC, Egypt, 11010184	Participant	90,000 EGP
4	Invention of a new catalyst for the economic CO2 conversion in to fuel	STDF 25578	PI	100,000 EGP
5	<b><u>Centre of Excellence Economic production of nanomaterials for accreditation and local market needs</u></b>	STDF 31305	Co-PI	7.9MEGP
6	Carbon quantum dots size control using electrochemical method and their application in supercapacitors as a powerful tool for energy storage.	STDF-Youg Research Accepted 25609	PI	695,000 EGP
7	Development of central lab for thin film production used in solar cell applications	ASRT-Science Up Central lab ID 6740	PI	1,979,670 EGP

8	Multifunctional perovskite nanomaterials for photoelectrochemical and electrochemical water splitting	STDF-Post Graduate Support Grant (PGSG)	Supervisor	140,000 EGP
9	Immobilization of Biomolecules on Titanate Nanostructures for Modern Application	BSU	Supervisor	15,000 EGP
10	lanthanum doped zinc oxide thin film	SNG	Supervisor	100,000 EGP
11	Improvement of the physical and magnetic properties of some Two-dimensional layered materials"	STDF-Post Graduate Support Grant (PGSG)	Supervisor	149,000 EGP
12	<b><u>Centre of Excellence in Water</u></b>	<b><u>USAID</u></b>	<b><u>Co-Chair Sustainability pillar</u></b>	

## LINKS

- <https://scholar.google.com/citations?hl=en&user=MZyimVcAAAAJ>
- <https://publons.com/researcher/502921/si-el-dek>
- <https://www.scopus.com/authid/detail.uri?authorId=8930118900>
- <http://orcid.org/0000-0003-4564-9455>
- Web of Science Researcher ID P-1809-2015
- <https://request500womenscientists.org/profile/6060>

## References

**Prof. Mohamed Mahmoud khedr (M. H. Khedr)**  
**Professor of materials science and nanotechnology Former Vice president of Beni-Suef University.**  
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*S.I.El-Dek*

Director of the International Ranking and sustainable development office  
Vice Dean for Environmental and society affairs  
Former Vice Dean for Postgraduate and research affairs  
Former Head of Materials Science and Nanotechnology Department  
Faculty of Postgraduate Studies for advanced sciences  
Beni-Suef University, Beni-Suef, Egypt  
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