Curriculum vitae

Personal information

Name	Mohamed Talaat Mohamed Moustafa
Position	**Dean of Engineering and Technology** – Faculty of Engineering and Technology – Egyptian Chinese University – Cairo – Egypt. **Full Professor** (***Prof. of Electrical Power Systems***)
Address	Faculty of Engineering and Technology – Egyptian Chinese University –14 Abou Ghazalh, Mansheya El-Tahrir, Ain Shams, Cairo. Egypt Faculty of Engineering – Zagazig University – Zagazig – Egypt.
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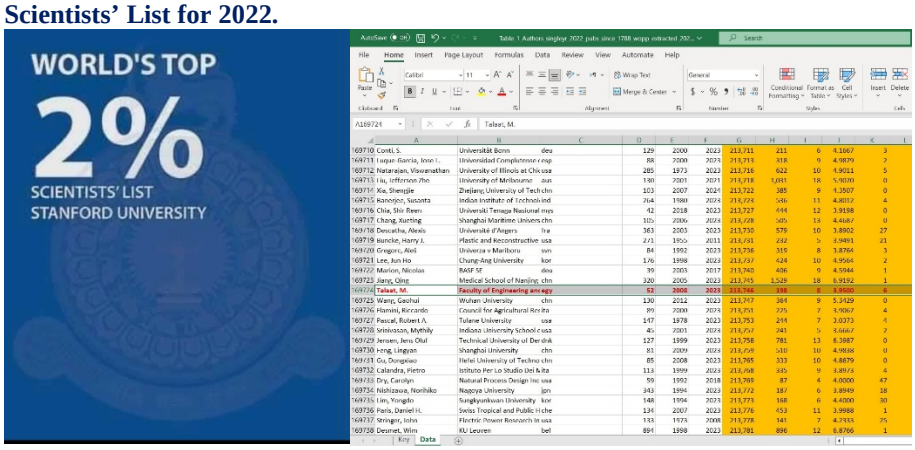
Nationality	Egyptian.
Scopus	https://www.scopus.com/authid/detail.uri?authorId=24781500700
ORCID iD	https://orcid.org/0000-0001-5976-7810
Publons	https://publons.com/researcher/1290073/prof-mohamed-talaat/
Research gate	https://www.researchgate.net/profile/M_Talaat/publications
Google Scholar	https://scholar.google.com.eg/citations?user=Jwd8yQIAAAAJ&hl=en

Research interests:

Renewable energy integration techniques, Energy conversion (solar-wind-wave energies) to electrical power generation, Artificial intelligence applications in power systems, IoT, and hybrid cloud-based data processing for power system monitoring in smart and microgrids.

Research Impact:

According to Stanford University, my name (M. Talaat) is on the World's Top 2% Scientists' List for 2022.



Publications and articles submitted.

[1]. A. El-Zein and **M. Talaat** "New Experimental Study of an Injected Air Bubble Deformation in Dielectric Liquid under Applied High D.C. Voltage Using Photographic Recording**", IEEE,** Ninth International Middle East power systems conference, **MEPCON' 2003**, pp. 869-873 Shebin El-Kom, **Egypt,** December 16-18, **2003.**

[2]. A. El-Zein and **M. Talaat** "Pre-Breakdown Analysis during the Deformation of an Artificial Air Bubble in Transformer Dielectric Liquid under High DC Negative Applied Voltage" **IEEE,** Tenth International Middle East power systems conference, **MEPCON' 2005**, pp. 113-117, Port-said, **Egypt**, December 13-15, **2005.**

[3]. A. El-Zein, M.M. El Bahy and **M. Talaat** "Types of Electrical Tree in Solid Insulation Under Electrical and Mechanical Energy Basis" **IEEE,** Power System Conference **MEPCON' 2008**, pp. 80-84, Aswan**, Egypt**, **2008.**

[4]. A. El-Zein, M.M. El Bahy and **M. Talaat** "A Simulation Model for Electrical Tree in Solid Insulation Using CSM Coupled with GAs", **IEEE** Annual Report Conference on Electrical Insulation and Dielectric Phenomena **CEIDP 2008**, pp. 645-649**,** Quebec, **Canada** October 26-29, **2008.**

[5]. A. El-Zein, M.M. El Bahy and **M. Talaat** "A Prediction Methodology of Electrical Tree Propagation in Solid Dielectrics" International Journal of Electrical Engineering**, J. Elec. Eng. (2009) Vol. 9 / 2009 – No. 2**, pp. 87-93**, 2009.**

[6]. A. El-Zein, **M. Talaat** and M.M. El Bahy "A New Method to Predict the Electrical Tree Growth in Solid Insulation" Proceedings of the 16th International Symposium on High Voltage Engineering**, (ISH 2009),** paper D-15, pp. 1-6**, 2009.**

[7]. A. El-Zein, **M. Talaat** and M.M. El Bahy "A Numerical Model of Electrical Tree Growth in Solid Insulation" **IEEE Transactions on Dielectrics and Electrical Insulation, Vol. 16, No. 6; pp. 1724-1734, December 2009. IEEE.**

[8]. A. El-Zein and **M. Talaat,** "A New Model of Investigating the Electric Field in Dielectric Liquid for Streamer Initiation" Journal of Electrical Engineering**, J. Elec. Eng. (2010)** Vol. 10 / 2010 – No. 2, pp. 47-51**, 2010.**

[9]. A. El-zein and **M. Talaat**, "A Numerical Model of Investigating the Electric Field in Dielectric Liquid" **IEEE MELECON** Conference 2010, pp. 393-397, **2010.**

[10]. **M. Talaat** "A Simulation Model of Fluid Flow and Streamlines Induced by Non-Uniform Electric Field" **IEEE,** 14th International Middle East Power Systems Conference **MEPCON'10**, pp. 371-375, Cairo University, **Egypt**, **2010.**

[11]. M. Farahat and **M. Talaat** "A New Approach for Short-Term Load Forecasting Using Curve Fitting Prediction Optimized by Genetic Algorithms" **IEEE,** 14th International Middle East Power Systems Conference **MEPCON'10**, pp. 106-110, Cairo University, **Egypt**, December 19-21, **2010.**

[12]. **M. Talaat "**Charge Simulation Modeling for Calculation of Electrically Induced Human Body Currents" **IEEE** Annual Report Conference on Electrical Insulation and Dielectric Phenomena **CEIDP 2010,** pp. 644-647, **USA,** October 17-20, **2010.**

[13]. **M. Talaat** "Influence of Transverse Electric Fields on Electrical Tree Initiation in Solid Insulation" **IEEE** Annual Report Conference on Electrical Insulation and Dielectric Phenomena **CEIDP 2010**, pp. 313-316, **USA,** October 17-20, **2010.**

[14]. **M. Talaat "**Electric Field Simulation along Silicone Rubber Insulators Surface**"** Proceedings of the 17th International Symposium on High Voltage Engineering, **(ISH 2011) Germany,** paper A-22, pp. 1-6**, 2011.**

[15]. **M. Talaat,** A. El-Zein, "Analysis of Air Bubble Deformation Subjected to Uniform Electric Field in Liquid Dielectric", **International Journal of Electromagnetics and Applications**, Vol. 2, No. 1, pp. 4-10, **2012**.

[16]. M. A. Farahat, **M. Talaat,** "Short-Term Load Forecasting Using Curve Fitting Prediction Optimized by Genetic Algorithms", **International Journal of Energy Engineering**, Vol. 2, No. 2, pp. 23-28, **2012**.

[17]. **M. Talaat,** M. Magdy, A. Abd El-Baset, M. Abo-Msallam, A. Abdallah, E. Mohamed, A. Amer, M. El-Dallal, "Software for Calculating The Non-Uniform Electric Field Causing Electrical Tree in Underground Cables", **International Journal of Electromagnetics and Applications**, Vol. 2, No. 4, pp. 69-72, **2012**.

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[20]. **Mohamed Talaat,** Reda Edris, Naglaa Ibrahim, Fatma Omar, Mohamed Ibrahim**,** "A New Approach for Converting Renewable Energy to Stable Energy"**, Engineering,** Vol. 5, No. 10A, pp. 27-33**, 2013.**

[21]. A. El-Zein and **M. Talaat,** "Suppression of the Electrical Tree Growth in Solid Insulation Using a Transverse Layer of Dielectric Barrier", **Journal of Electrical Engineering** Vol. 13, No. 3, pp. 114-117**, 2013**.

[22]. **M. Talaat,** "Calculation of electrostatically induced field in humans subjected to high voltage transmission lines", **Electric Power Systems Research** Vol. 108, pp. 124-133**, 2014**. **Elsevier.**

[23]. **M. Talaat,** "Calculation of Electric and Magnetic Induced Fields in Humans Subjected to Electric Power Lines", **Journal of Electrostatics** Vol. 72, No. 5 pp. 387-395, **2014. Elsevier.**

[24]. **M. Talaat,** "Electrostatic Field Calculation in Air Gaps with a Transverse Layer of Dielectric Barrier", **Journal of Electrostatics** Vol. 72, No. 5 pp. 422-427, **2014. Elsevier.**

[25]. **M. Talaat** and N. H. Mostafa, "Use of Finite Element Method for the Numerical Analysis of Eddy Current Brake", **IEEE** 15th International Workshop on Research and Education in Mechatronics, (**REM 2014**), pp. 1-7, 2014.

[26]. **M. Talaat,** N. H. Mostafa, Y. H. Hossamel-deen and Radwan H. Abdel Hamid, "A University-Industry Link in Egypt Using the Social Networks", **IEEE** 15th International Workshop on Research and Education in Mechatronics, (**REM 2014**), pp. 1-3, 2014.

[27]. **M. Talaat, "**Corrigendum to "Calculation of electrostatically induced field in humans subjected to high voltage transmission lines" [Electr. Power Syst. Res. 108 (2014) 124-133]**", Electric Power Systems Research** Vol. 122, pp. 224**, 2015. Elsevier.**

[28]. **M. Talaat** and N. H. Mostafa, **"**Use of Finite Element Method for the Numerical Analysis of Eddy Current Brake**", Journal of Electrical Engineering,** Vol. 15, No. 1, pp. 121-126**, 2015.**

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[62]. Zeinab El-Shaarawy, **M. Talaat**, A. El-Zein, "Field reduction simulation based on covered conductors design in medium voltage lines", **Results in Engineering**, Vol. 10, p. 100217, **2021. Elsevier.**

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Work experience

Dates	**1 September 2023→ Present**
Occupation or position	Professor – **Dean of Engineering and Technology** – Faculty of Engineering and Technology – Egyptian Chinese University – Cairo – Egypt.
Dates	**15 October 2022→ 31 August 2023**
Occupation or position	Professor – **Vice Dean for Education and Students' Affairs** – Faculty of Engineering and Technology – Egyptian Chinese University – Cairo – Egypt.
Dates	**1 September 2023→ Present**
Occupation or position	Professor – **Head of Energy and Renewable Energy Program** – Faculty of Engineering and Technology – Egyptian Chinese University – Cairo – Egypt.
Dates	**1 September 2021→ 31 August 2023**
Occupation or position	Professor – **Head of Mechatronics Program** – Faculty of Engineering and Technology – Egyptian Chinese University – Cairo – Egypt.
Dates	**27 April 2018→ 31 August 2021**
Occupation or position	Professor – **Head of Electrical Department** – College of Engineering -Shaqra University – KSA And Head of **ABET accreditation team** of EE Program (**accredited from ABET for 8 years**)
Dates	**10 July 2021 → Present**
Occupation or position	**Professor** – Electrical Power and Machines Department – Faculty of Engineering - Zagzaig University - Egypt
Main activities and responsibilities	Teaching the following subjects • Power System Analysis. • Electrical Power Eng. • Power System Dynamics & control. • High Voltage Eng. • Electrical Measurements. • Utilizations of power system. • Computer Design of Electrical Power System. • Electromagnetic Fields. • Electrical and Electronics Engineering. • Electrical Power & Machines Eng. • Introduction to Mechatronics.

	• Mechatronics Measurements. • Computer applications in Electromagnetic Fields. • Modern Trends in High Voltage and DC Transmission Line.
Name and address of employer	Zagazig University Electrical Power and Machines Department, Faculty of Engineering, 44519 Zagazig - Sharkia (Egypt)
Dates	**May 2016 → July 2021**
Occupation or position held	**Associate professor** – Electrical Power and Machines Department – Faculty of Engineering -Zagzaig University - Egypt
Main activities and responsibilities	Associate professor participating in teaching power, high voltage and machines courses.
Name and address of employer	Zagazig University Electrical Power and Machines Department, Faculty of Engineering, 44519 Zagazig - Sharkia (Egypt)
Dates	**2009 → May 2016**
Occupation or position held	**Assistant professor** – Electrical Power and Machines Department – Faculty of Engineering -Zagzaig University - Egypt
Main activities and responsibilities	Assistant professor participating in teaching power, high voltage and machines courses.
Name and address of employer	Zagazig University Electrical Power and Machines Department, Faculty of Engineering, 44519 Zagazig - Sharkia (Egypt)
Dates	**2005 → July 2009**
Occupation or position held	**Lecturer** – Electrical Power and Machines Department – Faculty of Engineering - Zagzaig University - Egypt
Main activities and responsibilities	Lecturer participating in teaching power and machines courses and Labs.
Name and address of employer	Zagazig University Electrical Power and Machines Department, Faculty of Engineering, 44519 Zagazig - Sharkia (Egypt)
Dates	**2001 → 2005**
Occupation or position held	**Demonstrator** – Electrical Power and Machines Department – Faculty of Engineering - Zagzaig University - Egypt
Main activities and responsibilities	Demonstrator participating in teaching power and machines courses and Labs.
Name and address of employer	Zagazig University

	Electrical Power and Machines Department, Faculty of Engineering, 44519 Zagazig - Sharkia (Egypt)
Dates	**2009 → 2013**
Occupation or position held	Seconded to – High Technology Institute -10th of Ramadan - Egypt
Main activities and responsibilities	Associate professor participating in teaching Electrical Engineering courses.
Name and address of employer	High Technology Institute 10th of Ramadan - Egypt
Dates	**2010 → 2012**
Occupation or position held	**Consultant** – Communication and Information Technology Center CITC/MIS -Zagazig University - Egypt
Main activities and responsibilities	MIS Consultant – Zagazig University.
Name and address of employer	Zagazig University - Egypt
Dates	**2012 → 2014**
Occupation or position held	**Project Manager** – Communication and Information Technology Center CITC/MIS - Zagazig University - Egypt
Main activities and responsibilities	Project Manager – Zagazig University.
Name and address of employer	Zagazig University - Egypt
Dates	**2014 → 2016**
Occupation or position held	**Project Manager** – Training and Continuing Education Unit -Zagazig University - Egypt
Main activities and responsibilities	Project Manager – Zagazig University.
Name and address of employer	Zagazig University - Egypt
Dates	**2014 → 2016**
Occupation or position held	IT Unit Manager - Information Technology Unit – Faculty of Engineering - Zagazig University - Egypt

Main activities and responsibilities	IT Unit Manager – Faculty of Engineering - Zagazig University.
Name and address of employer	Zagazig University - Egypt
Dates	**2016 → 2017**
Occupation or position held	**Consultant** – Project Management Unit - Higher Education Development – Ministry of Higher Education - Egypt
Main activities and responsibilities	MIS Consultant – Higher Education Development.
Name and address of employer	Ministry of Higher Education - Egypt
Dates	**December 2017 → August 2021**
Occupation or position held	**Associate professor** – Electrical Engineering Department – College of Engineering - Shaqra University - KSA
Main activities and responsibilities	Teaching the following subjects • Fundamental of Power Systems • High Voltage Engineering. • Devices and Measurements. • Engineering Electromagnetics (1). • Renewable Energy.
Name and address of employer	Shaqra University Electrical Engineering Department, College of Engineering, 11911 Dawadmi - KSA

Education

Dates	**2005 → 2009**
Title of qualification awarded	PhD in Electrical Power and Machines Engineering
Principal subjects / occupational skills covered	Thesis Title: “Electrical Trees in Solid Insulation Analysis”
Name and type of organization providing education and training	Zagazig University
Dates	**2001 → 2005**
Title of qualification awarded	MSc in Electrical Power and Machines Engineering
Principal subjects / occupational skills covered	Thesis Title: “Electrical Pre-Breakdown Analysis in Dielectric Liquid Using Air Bubble Deformation in the Medium”

Name and type of organization providing education and training	Zagazig University
Dates	**May 2000**
Title of qualification awarded	BSc in Electrical Power and Machines Engineering
Mark obtained	Very Good with honor
Principal subjects / occupational skills Covered	Electrical Power and Machines Engineering Undergraduate subjects
Name and type of organization	Faculty of Engineering (Zagazig University) 44519 Sharkia - Zagazig (Egypt)

Training

- Training - Mechatronics degree funded by Europe, **Poland 2013**
- Training - Green Innovation and Entrepreneurship Program - double MSc degree in GIEP funded by Europe, **Italy 2014**
- Training - Green Innovation and Entrepreneurship Program - double MSc degree in GIEP funded by Europe, **Graz 2014**

Training courses attended:

1. University teacher preparation (75 hours)
2. Exams and Students Evaluation Systems (15 hours)
3. International Publishing of Scientific Research (15 hours)
4. Research Ethics (15 hours)
5. Managing Time and Meetings (15 hours)
6. Conference Organization (15 hours)

Mother tongue(s)	**Arabic**
Other language(s)	**English**

Research interests

- Renewable Energy
- Energy conversion (solar-wind-wave energies) to electrical power generation
- Artificial intelligence applications in power systems
- IoT, and hybrid cloud-based data processing
- Power system monitoring
- Smart and microgrids
- Computer Simulation
- Genetic Algorithms
- Plasma Science
- High Voltage
- Electromagnetic fields
- Underground cables
- Transformer oil
- Insulations Material (Dielectric Liquid – Gases – Solids)
- Charge Simulation Technique

Thesis supervision

MSc (18)
PhD (5)

Social skills and competences

Team- work experienced from my work with my colleagues and interacting with other colleagues and training programs with co-workers in the research.

Society membership

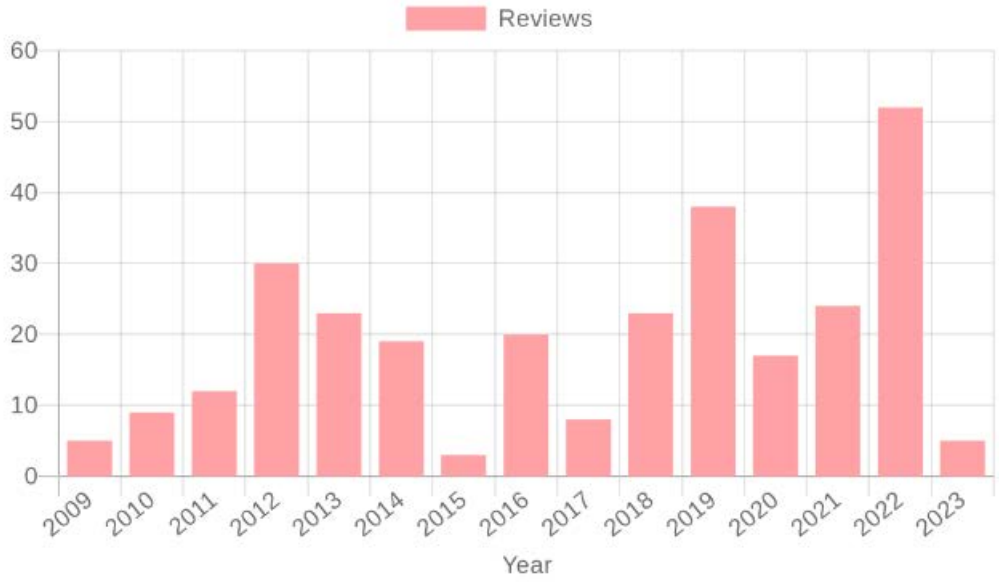
Reviewer Summary

For manuscripts reviewed from date range April 2018 - April 2023

(32) Journal of Electrical Engineering	(23) Energy
(13) IET Science, Measurement and Technol…	(11) Energy Reports
(10) Results in Engineering	(7) IEEE Transactions on Dielectrics and Elec…
(7) Energies	(6) Sustainability
(4) Ain Shams Engineering Journal	(4) Sustainable Cities and Society
(4) IEEE Access	(4) Artificial Intelligence Review
(4) Environmental Progress & Sustainable E…	(3) IET Generation, Transmission & Distributi…
(3) Plasma Science and Technology	(3) Applied Energy
(3) High Voltage	(2) International Journal of Electrical Power …
(2) Applied Computational Electromagnetic…	(2) Journal of Applied Geophysics
(1) Power Engineering Letters	(1) The Journal of Optics
(1) Advances in Engineering Software	(1) Journal of King Saud University - Engine…
(1) Journal of Computational Methods in Sci…	(1) IEEE Transactions on Plasma Science
(1) Engineering Computations	(1) IEEE Transactions on Electromagnetic Co…

Verified reviews

Review Summary



Organizational skills and competences	Having the ability to organize my own work, setting priorities and taking responsibility, gained during professional experiences devoted to activities scheduling, respecting both deadlines and goals. Able to work on own initiative and as part of a team. Able to manage, develop and motivate my teams to achieve the objectives acquired at work. Good ability to organize academic work related to quality assurance like: • Educational Programs specifications, • Course specifications, • Course reports, • Course's blueprint, • and other educational quality requirements. Experience in organization conferences during my work "**Annual international conference in Engineering Sciences and Applications**". Work in European projects and task management for educational degrees creation and developments like: 1. Green Innovation and Entrepreneurship Programme(GIEP) No. "530611-TEMPUS-1-2012-1-IT-TEMPUS-JPCR" 2. JIM2L - Development of Joint International master's degree and Lifelong Learning Framework in Mechatronics No. "516686-TEMPUS-1-2011-1-DE-TEMPUS-JPCR"
Technical skills and competences	• Technical skills provided by Electrical Engineering specialization in Renewable Energy, Artificial Intelligence and Electrical Power Insulation. • Good knowledge of Renewable Energy applications. • Ability to construct numerical model of power integration problems. • Good experience of experimental work with visualization problems, measurements using data acquisition systems.
Computer skills and competences	Operating systems: Windows: Excellent knowledge Microsoft Office: Excellent knowledge COMSOL Multiphysics 5 MATLAB, EES: Basic knowledge LabView: Basic knowledge (Measurement and data analysis) PROGRAMMING LANGUAGES C, C++: Basic knowledge FORTRAN: Expert knowledge