

#### Personal Data

Name	Mohamed El-Sayed Mahmoud Badria	Department	Mathematics
Staff position	Associate Professor	Nationality	Egyptian
Mobile	0598020142	Official NU Email	<a href="mailto:mabadria@nu.edu.sa">mabadria@nu.edu.sa</a>
Specialization	Pure Mathematics	Area of Specialization	Topology and its applications

#### Academic Qualifications (Beginning with the most recent):

Date	Academic Degree	Place of Issue	Address
3/3/2011	Doctor of Philosophy	Tanta university	Granule Computing Based on Near Open Sets
31-07-2007	Master of Science in Pure Mathematics	Tanta university	Relation between some types of continuity in topological spaces
1-9-1995	Postgraduate Diploma in Education	College of education	Mathematics Teaching Methods

#### Professional Record (Beginning with the most recent):

Job Rank	Place and Adress of Work	Date
Associate Professor	College of Arts and Science	16-09-1442
Assistant Professor	College of Arts and Science	30-10-1432

Google scholar:

<https://tinyurl.com/4dyj3t2z>

ID Orcid :

<https://orcid.org/0000-0003-1707-5327>

Research Gate :

<https://tinyurl.com/38bfdvuc>

SCOPUS:

<https://tinyurl.com/z4ufsktt>

Web of Science Researcher ID:

OON-2383-2025

## Scientific Achievements

### Current Researches

- 1) S.A. Alblowi <sup>a</sup>, Hala Alzumi <sup>a</sup>, A.N. Al Qarni <sup>b</sup>, M. El Sayed <sup>c</sup>, and M.A. El Safty <sup>d</sup>. Topological approach with decision making based on nano beta and its application . *Alexandria Engineering Journal*. Volume 137, February 2026, Pages 218-224. <https://doi.org/10.1016/j.aej.2026.01.020>
- 2) M. El Sayed Exploring Nano Simply Open Sets in Nano Topology: Applications and Insights *Journal of Applied Science, Engineering, Technology, and Education* Vol. 7 No. 1 , 148-156 2025. <https://doi.org/10.35877/454RI.asci4215> & <https://ascijournal.eu/index.php/asci/article/view/4215>
- 3) M. El Sayed . Nano simply alpha open set and novel neighborhood techniques for accurate symptom detection in medical applications. *Thermal science*, Vol. 28, No. 6B, pp. 5125-5141 (2024) <https://doi.org/10.2298/TSCI2406125S> .
- 4) M. El Sayed et al. Economic decision-making on nano simply  $\alpha^*$  alpha open set in a rough set *Thermal science*, Vol. 28, No. 6B, pp. 4933-4942 (2024) <https://doi.org/10.2298/TSCI2406933S> .
- 5) M. El Sayed and et al Enhancing decision-making in breast cancer diagnosis for women through the application of nano beta open sets *Alexandria Engineering Journal* 99 (2024) 196–203 <https://doi.org/10.1016/j.aej.2024.05.013>
- 6) Elhadi E. El amir, M. El Sayed and et al Max-min Fuzzy and soft sets approach in constructing fuzzy soft matrix for medical decision-making during epidemics *Alexandria Engineering Journal* 99 (2024) 319–325 <https://doi.org/10.1016/j.aej.2024.05.006>
- 7) Elhadi E. El amir, M. El Sayed, A. N. Al Qarni <sup>2</sup>, M. A. El Safety Decision-making to Limit Epidemics Spread Based on Fuzzy-Soft and Topological Spaces *Alexandria Engineering Journal* 74 (2023), 725–7 <https://doi.org/10.1016/j.aej.2023.05.045>
- 8) E. A. Mohsin, Y. Y. Yousif and M. El Sayed Some Results on Nano Perfect Mappings. *Ibn Al-Haitham Journal for Pure and Applied Sciences*, IHJPAS. 36(3) pp. 398-407, 2023. <https://jih.uobaghdad.edu.iq/index.php/j/article/view/3051>.
- 9) M. El Sayed and et al. Economic decision on nano simply  $\alpha^*$  alpha open set in a rough set *Thermal Science* Vol. 28, No. 6B, pp. 4933-4942, (2024).
- 10) M. El Sayed Nano simply alpha open set and novel neighborhood techniques for accurate symptom detection in medical applications. *Thermal Science* Vol. 28, No. 6B, pp. 5125-5141, (2024).
- 11) M. El Sayed, Wadia Faid Hassan Al-shameri and M. A. El Safety On Soft pre-rough Approximation Space with Applications in Decision Making. *CMES-Computer Modeling in Engineering & Sciences* <https://doi.org/10.32604/cmcs.2022.020066>
- 12) **Wadia Faid Hassan Al-shameri and Mohamed El Sayed.** Fractals generated via numerical iteration method. *Fractal and Fractional* 2022, 6(4), 196 <https://www.mdpi.com/2504-3110/6/4/196>

- 13) Mukhtar,\*, Ansari Saleh Ahmar, M. A. El Safty, Hamed El-Khawaja and M. El Sayed Bayesian Convolution for Stochastic Epidemic Model CMES-Computer Modeling in Engineering & Sciences *Vol.34, No.2, 2022*, pp.1175-1186, [doi:10.32604/iasc.2022.025214](https://doi.org/10.32604/iasc.2022.025214)
- 14) Mostafa K. El-Bably and Mohammad El Sayed. Three methods to generalize Pawlak approximations via simply open concepts with economic applications *Soft Computing* Volume 26, pages 4685–4700, (2022) <https://doi.org/10.1007/s00500-022-06816-3>
- 15) **Majed .H. Jaber, Yousif. Y. Yousif and M. El Sayed** Fibrewise Multi-Perfect Topological Spaces *Ibn Al-Haitham Journal for Pure and Applied Sciences IHJPAS. 36 (4) , 2023 , 396-406 .* <https://doi.org/10.30526/36.4.2911>
- 16) M. El Sayed, some types of normality and regularity based on near simply open sets, *Poincare Journal of Analysis & Applications*, vol. 8, no. 1(I) (2021), Special issue, 67-78 DOI: 10.33786/pjaa.2021.v08i01(i).007 .
- 17) M. El Sayed, M. A. El Safty and M. K. El-Bably. Topological approach for decision-making of COVID-19 infection via a nano-topology Model *AIMS Mathematics*, [Volume 6, Issue 7](https://doi.org/10.3934/math.2021457), 7872–7894. (2021) <https://doi.org/10.3934/math.2021457>
- 18) M. A. El Safety M. El Sayed S. A. Alblowi., Accuracy based on simply\* alpha open set in rough set and topological space *Soft computing* pp. 10609–10615 (2021). <https://doi.org/10.1007/s00500-021-05935-7>
- 19) S. A. Alblowi, M. El Sayed and M. A. El Safety Decision Making Based on Fuzzy Soft Sets and Its Application in COVID-19 *Intelligent Automation & Soft Computing* pp. 961-972 (2021) [http://dx.doi.org/10.32604/iasc.2021.01824\\_2](http://dx.doi.org/10.32604/iasc.2021.01824_2)
- 20) M. A. El Safty, Samirah Al Zahrani, M. K. El-Bably and M. El Sayed Soft  $\zeta$ -Rough Set and Its Applications in Decision Making of Coronavirus *Computers, Materials & Continua* pp vol.70 no.1 , 267-285 <https://doi.org/10.32604/cmc.2022.019345> (2022)
- 21) **Kh. Abd-Rabou, I. K. Halfa, K. Barakat, M. El sayed**, Soft  $\ast b$  - Open Sets and Soft  $\ast b$  - Continuous Function Appl. *Math. Inf. Sci.* 9, No. 3, PP:83-88 (2020) [doi:10.18576/msl/090305](https://doi.org/10.18576/msl/090305)
- 22) M. A. El Safty , S. A. Alblowi, Yahya Almalki, M. El Sayed<sup>4</sup> Coronavirus Decision-making Based on a Locally  $S^\alpha$ -generalized Closed Set *Intelligent Automation & Soft Computing IASC, 2022*, vol.32, no. pp. 483-498 [doi:10.32604/iasc.2022.021581](https://doi.org/10.32604/iasc.2022.021581) ,
- 23) M. El Sayed, Wadia Faid Hassan Al-shameri and M. A. El Safty “On soft pre-rough approximation space with applications in decision making,” *Computer Modeling in Engineering & Sciences*, vol. 32, no.1, pp. 483-498, Feb, 2022, DOI:10.32604/cmesc.2022.02006 .
- 24) M. El Sayed , Abdul Gawad A. Q. Al Qubati and M. K. El-Bably, Soft pre-rough sets and its applications in decision making *Mathematical Biosciences and Engineering MBE*, 17(5): 6045–6063. **2020**.
- 25) M. El Sayed and Abdul Gawad A. Q. Al Qubati, Some Properties on Soft Simply Star Open Sets in Soft Topological Space *Nanoscience and Nanotechnology Letters* Vol. 12, 113–119, 2020

- 26) Abdul Gawad. A. Q. Al-Qubati and Mohamed El Sayed **Door** Spaces in Intuitionistic Fuzzy Topological Spaces International Journal of Fuzzy Logic and Intelligent Systems Vol. 22, No. 3, September 2022, pp. 296-302. <http://doi.org/10.5391/IJFIS.2022.22.3.296>
- 27) Abdul Gawad A. Q. Al Qubati and M. El Sayed, Small and Large Inductive Dimensions of Intuitionistic Fuzzy Topological Spaces Nanoscience and Nanotechnology Letters Vol. 12, 413–417, 2020
- 28) M. El Sayed, Kh. Abd-Rabou and M. A. El Safty, New Classes of Soft Open Sets in Soft Generalized Topological Spaces The Journal of Fuzzy Mathematics Vol. 28, No. 3, pp.721-732. Los Angeles U.S.A.
- 29) M. El Sayed, Soft Simply\* generalized continuous mappings in soft topological spaces international journal of engineering and applied science 14(9) pp.3104-3112
- 30) M. El Sayed and Mostafa K. El-Bably, Soft simply open sets in soft topological space Journal of computational and theoretical Nano science.vol.14, No.4, 4100-4103, 2017
- 31) M. El Sayed, Generating Simply Approximation Spaces by Using Decision Tables Journal of Computational and Theoretical Nano science Vol. 13, 7726–7730
- 32) M. El Sayed, Fuzzy\* continuous function in fuzzy topological space the journal of fuzzy Mathematics, vol.24, No.2 249-257, (2016).
- 33) M. El Sayed, Applications on  $\overset{M}{S}\alpha$  -Approximation Space based on simply  $\alpha$ -open sets” European journal of scientific research Vol. 119, No1, (2014), pp. 7-14.
- 34) M. El Sayed. Simply alpha generalized Rough Types the Journal of Fuzzy Mathematics, Los Angeles Vol. 21, No. 2, pp267-278
- 35) M. A. El Safty, M. El Sayed, S. A. ALBLOWI and A. A. Mousa, Topological approach on Fuzzy soft -  $\beta$  closure and  $\beta$  - interior and its Application in Decision Making. Nanoscience and Nanotechnology Letters Vol.12 No.11 pp, 1323–1328 (2020).
- 36) M. El sayed , I. A. Noaman, Simply Fuzzy generalized open and closed sets Vol 4, No. 3, 528-533 (2013).
- 37) M.E. Abd El Monsef, M. Swealam and M. El Sayed, On Simply Approximation space the Journal natural Mathematics 2011 Quassim University Saudia Arabia, Mathematics Vol. 5 No. 1 pp 41-50 (2011).
- 38) M.E. Abd El Monsef, A. EL M. Kozae and M. El Sayed, simply approximation space based on simply open sets Jour. Of I NST, OF Mathematics & computer science Vol. 22, No. 1, 1-9 (2011)..
- 39) M. Sweal am, R. A. Afify and M. El Sayed, on rough convexity sets Journal of advances in mathematics Vol.4 No. 3 pp. 534-540 (2013).

## Teaching Activities

- Linear Algebra (College of Computer Science, First Semester 1447 AH)
- Linear Algebra 2 (College of Science and Arts, First Semester 1447 AH)
- Advanced Calculus (First Semester 1447 AH)
- Euclidean and Non-Euclidean Geometry (First Semester 1447 AH)
- Real Analysis 2 (First Semester 1447 AH)
- Topology (First Semester 1446 AH)
- Introduction to Differential and Integral Calculus (second Semester 1446 AH)
- Calculus (First Semester 1445 AH)
- Discrete Mathematics (First and Second Semesters, 1446 AH)

## Administrative Responsibilities, Committee and Community Services

### Administrative Responsibilities

1. Member of the Promotion and Scientific Excellence Committee – to date.
2. Member of the Community Service Committee – to date.
3. Member of the Academic Advising Committee – to date.
4. Member of the Quality Committee in the Mathematics Department – to date.
5. Member of the Events and Initiatives Committee – to date.
6. Member of the Academic Advising Committee – to date.
7. Member of the Student Activities Committee – to date.
8. Coordinator of Community Service at the College of Science and Arts (Male Section) – to date.
9. Member of the Mathematics Department Council – to date.
10. Coordinator of the Mathematics Department Website – to date.
11. Member of the Foundation for Mathematics and Physical Sciences at [www.topositus.com](http://www.topositus.com).

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1. Certified holder of ICDL (International Computer Driving License).
2. Proficient (very good level) in using Scientific Workplace (SWP 5.5), a software for writing mathematical documents, with the ability to convert files to LaTeX and PDF formats.

### Training Courses and Workshops

1. **Attending and Evaluating the Fourth Seminar: Cybersecurity is Our Shared Responsibility** Date: 22/10/2025
2. **Attended a scientific forum titled "The Role of the University Professor in Teaching and Learning Gifted and Disabled Students"** Date: 28/04/2025
3. **Attended a training course titled "Techniques for Preparing Scientific Research Tools: Between Theory and Practice"** Date: 24/04/2024
4. **Attended a seminar on "National Belonging: History and Civilization"** Date: 20/11/2024
5. **Attended an online training course titled "Utilizing Cultural Heritage to Serve Tourism in the Arab World"** Date: 24/03/2021
6. **Attended an online training course titled "Academic Scientific Research in the Arab World: Problems and Solutions"** Date: 17/03/2021
7. **Attended an online training course titled "Hope in Work"** Date: 15/03/2021
8. **Attended an online training course titled "Information Awareness as a Basis for Developing Self-Learning and Continuing Education"** Date: 10/03/2021
9. **Attended an online training course titled "Research Skills in the Digital Environment – Saudi Digital Library as a Model"** Date: 03/03/2021
10. **Attended a training course titled "Blackboard – Basic Level"**, held at the Computer Lab, College of Science and Arts Date: 27/12/1440 AH (Approx. 28/08/2019)
11. **Certificate of Appreciation from the College Dean for active community participation** Academic Year: 2022–2023
12. **Certificate of Appreciation from the Head of the Mathematics Department for outstanding efforts during the academic year and participation in the International Mathematics Day** Academic Year: 2022–2023

## Activities Related to Education Quality

1. **Attended a training course titled "Using Artificial Intelligence in Developing Educational Practices"** Date: 17/09/2025
2. **Attended a training course titled "Modern Teaching Strategies: From Theory to Practice"** Date: 09/09/2025
3. **Attended a training course titled "Scientific Publishing Index According to International University Rankings"** Date: 20/03/2024
4. **Attended a training course titled "Statistics and Data Science in Scientific Research"** Date: 18/03/2024
5. **Attended a training course titled "Goodbye Paper – Steps Towards Digital Transformation"** Date: 17/03/2024
6. **Attended a workshop titled "Taylor and Francis Science & Technology, and Social Science & Humanities Journals & Articles"** Date: 15/10/2023
7. **Attended a training course titled "Program and Course Learning Outcomes: Formulation and Measurement Methods"** Date: 16/10/2023
8. **Attended a seminar titled "Formulating and Measuring Learning Outcomes", Second Quality Forum 2023** Date: 08/11/2023
9. **Attended a training course titled "E-learning Systems and Platforms", by the Deanship of E-learning and Distance Education** Date: 30/08/2023
10. **Attended a workshop titled "Open Meeting with the Deanship of Scientific Research"** Date: 04/09/2023
11. **Attended a training course titled "Searching for Indexed Scientific Journals and Avoiding Fraud", organized by the Deanship of Scientific Research** Date: 05/06/2023
12. **Attended a training program by the Skills Development Unit – Deanship of Development and Quality titled: "Methodology in Planning Scientific Research (Skills, Mechanisms, Ethics)"** Date: (Date: 11/06/2023)
13. **Attended a workshop at the Mathematics Department titled "Mechanism for Formulating Course Learning Outcomes and Preparing Course Files"** Date: 5–7/07/1439 AH (Approx. Apr 2018)
14. **Attended a workshop at the Mathematics Department titled "Preparing Course Reports and Teaching Performance Improvement Plans"** Date: 12–14/08/1439 AH (Approx. Apr–May 2018)
15. **Attended a workshop at the Mathematics Department titled "Describing a Teaching Program and Preparing Course Syllabi for the Study Plan"** Date: 28/08–02/09/1439 AH (Approx. May 2018)

1. Review article entitled "Soft Retractions for Digital Images". **Manuscript number** (JIFS-190348) journal of intelligent & fuzzy system.
2. Review article entitled "Some separation axioms in L-convex spaces". **Manuscript number** (JIFS-190471) journal of intelligent & fuzzy system. 2019
3. Review article entitled "The Distance Measures and Cross-Entropy Based on Complex Fuzzy Sets and Their Application in Decision Making". **Manuscript number** (JIFS-191718) journal of intelligent & fuzzy system. 2019
4. Review article entitled "Computing the topological descriptors of line graph of the complete m-ray trees" Manuscript **number** (JIFS-191992) journal of intelligent & fuzzy system. 2019.
5. Review article entitled "The Distance Measures and Cross-Entropy Based on Complex Fuzzy Sets and Their Application in Decision Making" Manuscript **number** (JIFS-191718R1) journal of intelligent & fuzzy system. 2020.
6. Review article entitled "Sharp bounds for the general Randi\{c} index of transformation graphs" Manuscript **number** (JIFS-201139) journal of intelligent & fuzzy system. 2020.
7. Review article entitled "ON SOME EMBEDMENT OF GROUPS INTO WREATH PRODUCTS" Manuscript **number** 1496-JMSS) Journal of Mathematics and Statistics. 2020.
8. Review article entitled "On Epicompletely Regularity" Manuscript **number** 20-427 -NNL) Journal of Nanoscience and Nanotechnology Letters 2020.
9. Review article entitled "Almost  $\alpha$ -Regular Spaces" Manuscript number JKSUS-D-21-00996) Journal of King Saud University: Science 2021.
10. Review article entitled Certain domains of a new matrix constructed by Euler totient and its summation function Aims journal 2025
11. Review article entitled **Time- Shadow Soft Set and Its Application** International Journal of Fuzzy Logic and Intelligent Systems 2025