Strategic Plan 2023-2025

Faculty of Engineering-Matareya

Internal review dated September 1, 2024

College Council Approval No. (1) dated September 16, 2024

Review by the University Quality Assurance Center dated February 18, 2025

A word from Mr. Professor Dr. / Dean of the Faculty

In the name of God the most Merciful, the most Compassionate

Strategic planning aims to identify frameworks and means that lead the college to achieve its goals inspired by the college and its mission within a specific timetable, and accordingly, the strategic plan includes a set of administrative and executive activities practiced by the various departments of the college in accordance with the priorities of the strategic plan, where the process of evaluating the current situation of the institution and comparing it with the target according to the future vision of the college is one of the most important of these activities, which is known as identifying the gap. The step of identifying the gap is the cornerstone for developing a successful strategic plan, as the accuracy of determining the type and size of this gap is the main pillar for the formulation of detailed executive activities required from the various departments of the college or institution and the priorities of these activities in addition to the mechanisms that include the accuracy of implementation and periodic follow-up of all the activities of the strategic plan, taking into account the need to provide a great deal of flexibility in implementation to deal with the different circumstances that may appear during implementation as a result of external factors.

Believing in the utmost importance of strategic planning, the administration has begun to take all necessary measures to ensure the effective participation of all departments of the faculty at all levels in formulating the future strategic plan of the college 2023-2025 and its goals and objectives, which motivates all employees to

participate sincerely in the implementation of the activities of the plan in all its stages in order to achieve the future vision of the Faculty of Engineering Matareya - Helwan University.

. **I express my thanks and appreciation to everyone who contributed to this great work from the Department of Scientific Departments and the Quality Assurance Unit, and from workers, technicians and workers who believed in their duty and ability to work hard and sincere institutional.**

God bless

Dean of the Faculty

Prof. Amr Abdel Hady

A word from the Strategic Plan Preparation Committee

The Faculty of Engineering in Matareya obtained institutional accreditation from the National Authority for Quality Assurance and Accreditation of Education in 2013. One of the most important conditions for the renewal of accreditation is that the college's internal systems are demonstrably effective while continuing to develop and improve its institutional capacity and educational competence. Believing in the importance of strategic planning as well, the full support of the Quality Assurance Unit and active participation in all steps of the work of the strategic plan of the college, as well as the contribution of all scientific departments and departments of the college, stems from this strategic plan based on a real study, which helps to develop the real college and achieve the policies and goals sought by the college, including academic and institutional accreditation.

The strategic planning of the faculty has been done to help achieve quality in the educational process through a self-moving institutional capacity that helps the continuous development and continuity of excellence that the faculty has at the level of Helwan University and the level of engineering faculties in the Arab Republic of Egypt. Within the framework of keenness on development and improvement, the faculty has developed a strategic plan according to the variables of events and challenges and based on a study of the reality of the internal and

external environment, which identified strengths and weaknesses as well as external influences of opportunities and threats, and consistent with the strategic plan of Helwan University and the general policies adopted by the university, the Ministry of Higher Education and the state.

Strategic Plan Preparation Committee

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1. Introduction

Helwan University was established on July 26, 1975 by Law No. 70 of 1975 and then began to gather the faculties of the university in the scope of one campus after many years of diaspora and Helwan University, including its unique quality colleges is not repeated in Egyptian universities (Faculty of Applied Arts, Faculty of Art Education, Faculty of Music Education) The faculties of fine arts and physical education for boys and girls and home economics are the mother colleges and emerged from them similar colleges in other universities and Helwan University is the university of the future Its development represents the advancement of the educational process and reality for Egypt. The establishment of the university is a watershed in the development of the concept of university education in Egypt and Helwan University is located in Ain Helwan on an area of 350 acres, the foundation stone was laid in 1975 and the construction contract for the first phase was signed on 8/1/1985 and since then began the establishment of Helwan University, which includes 20 faculties and 58 units of a special nature and a number of facilities developed and since the university settled in its location began to pay attention to the surrounding environment, which is the city of Helwan and the area of Ezbet Al-Walda Helwan was appointed through conferences and seminars to improve the environment surrounding the university, especially with the presence of cement factories, which have already begun to reconcile their environmental conditions.

As for the Faculty of Engineering in Matareya, the college was established in the summer of 1955 under the name of the Higher Industrial Institute for Teachers in Heliopolis and the duration of the study in this institute was

five consecutive years in which only one month is granted as a summer vacation every year and among these years a training year in Germany, the headquarters of the Institute was transferred to Helwan in the summer of 1958 and remained retained the same previous study systems under the name of the Higher Industrial Institute for Teachers in Helwan and it was decided to accept the first batch of five-year system in Summer 1959 The study plan included eight months of training in Germany [the second semester of the third grade] in the same year the old system was described, which was followed and then there was a development in the study system and curricula in the summer of 1961, where the specialized university committees developed curricula equivalent to what is taught in the faculties of engineering at that time next to educational materials and the transfer of the headquarters to the current headquarters in Matareya, then changed its name to the Higher Institute of Industry in the summer of 1965, in the summer of 1967 changed Study plan and curricula for new students only The Industrial Teachers College was established and accepted the first batch in October 1967. As for the system of the Higher Institute of Industry, it continued to be gradually liquidated, the Industrial Teachers College was supported consecutive times, and the study and its curricula were developed under the name of the College of Technology and Education in 1971 and the first batch of the Faculty of Technology and Education graduated in 1972.

- In the summer of 1975, Helwan University was established and included the Faculty of Technology and Education, which was called the Faculty of Technology in Matareya, and the first batch of the Faculty of Technology graduated in 1976.
- In the summer of 1976, the new internal regulations of the college were applied after its adoption by the Supreme Council of Universities under the name of the Faculty of Technology in Matareya on all academic teams except the final year and deleted educational materials and supported engineering materials and studied curricula in line with the finest curricula taught in the faculties of engineering in Egyptian

universities and graduated the first batch of this system in May 1979 and became the name of the college "Faculty of Engineering and Technology" has been changed the name of the college to "Faculty of Engineering in Matareya"

- The duration of study at the college is five years to grant a bachelor's degree in engineering in four basic programs, namely mechanical power engineering, automotive and tractor engineering, architecture and civil engineering, and three new credit-hour programs have been added: the energy engineering program, the structural engineering program, and the architecture engineering program with digital technology. The Faculty of Engineering is located in Matareya in the eastern Ain Shams area, the intersection of Ibrahim Abdel Razek Street with the Higher Institute Industrial Street, and the faculty is located on an area of (11.31) acres with a total area of 47,500 square meters, and the faculty consists of 7 buildings used for administrative and educational purposes on 4.61 acres with a total area of 19,371 square meters, as well as there is a building on an area of 1500 square meters under construction to develop control and laboratory works and add some new educational spaces in the faculty, as well as green spaces in the faculty of gardens and trees Perennial on a total area of 4317 square meters.

The organizational structure of the college is appropriate and conforms to what was stated in the Universities Organization Law (49) for the year 1972 and has been updated by adding a quality assurance unit to become a basic unit in the administrative structure of the college, and it is currently being updated through the Central Agency for Organization and Administration in light of quality standards and accreditation to become the College of Engineering in Matareya a model to be followed for all engineering colleges at the regional level in the administrative structure.

The college has a website on the international information network, which is www.eng-mataria.edu.eg and there is on the site basic information about the college for all stakeholders from students and graduates, consulting offices, companies and service institutions that can benefit or benefit from the college. There is also on the website a description of the educational programs provided by the college and the material and human resources that exist in the college, and through the site the student schedules, examination schedules and results, as well as the means of communication with any department of The college or methods of complaining or inquiring about any information in the college.

The organizational structure of the college is as follows:

1- The College Council consists of 25 faculty members and three external members representing civil society, as well as the Director of the Quality Assurance Unit and the coordinators of the new programs are periodically invited to attend all college councils.

2- College Administration, which is represented in: A - Dean of the College

B- Vice Dean for Education and Student Affairs

C- Vice Dean for Graduate Studies and Research

Vice Dean for Community Service and Environmental Development.

3- Scientific Departments: Six scientific departments:

I. Department of Mechanical Power Engineering (Mechanical Power Engineering Program - Energy Engineering Program with Credit Hour System)

II. Department of Automotive and Tractor Engineering (Automotive and Tractor Engineering Program - Automotive Mechatronics Engineering Program with a credit-hour system)
III. Department of Architecture (Architecture Program – Digital Technology Architecture Program with Credit Hours)
IV. Department of Civil Engineering (Civil Engineering Program - Structural Engineering Program with Credit Hours System - Project Management and Sustainable Construction Program with Credit Hour System)
V. Department of Mechanical Design
VI. Department of Engineering Physics and Mathematics

The organizational structure of the college is characterized by clarity and identification of responsibilities for each of its members and the college is managed by the College Council specified in accordance with the Universities Organization Law and the college's organizational structure depends on decentralization in the administration, as it depends on the delegation in some authorities, where the dean of the college delegates the heads of departments in some responsibilities as well as the agents, although the important decisions that are important are taken through specialized councils and the college council.

There is an accurate determination of responsibilities and decision-making, whether for academic or executive leaders, and the college is characterized by a homogeneous administrative structure that harmonizes their scientific qualifications, personal potential, life and scientific skills of employees and the responsibility entrusted to them. There are many specialized departments to serve and support the educational process in the college, such as students, graduates and graduate affairs, all of which are characterized by efficiency in performance. The Quality

Assurance Unit is keen to establish the quality system in the college and assist in the process of developing the college.

Strategic Plan Preparation Committees

The strategy plan preparation team extends its deepest thanks and gratitude to everyone who participated positively and effectively in the preparation of the strategic plan 2025/2023, especially Prof. Dr. / Dean of the College and the Vice Deans for Education, Student and Graduate Studies Affairs, Community Service and Environmental Development, and also thanks the faculty members and their assistants for the effort exerted by them to accomplish this work, and we also especially thank the employees of the administrative departments of the college, students of study teams and community parties that contributed effort, thought and constructive addition to the output This work .

The strategic plan team is honored to extend its gratitude and appreciation to Prof. Dr. Director of Quality Department at the university for his technical and scientific support that contributed to the development of the strategic plan in its current form, on societal variables, workshops and the external audit report.

Supreme Committee for Strategy:

M	Function
1	Dean of the College
2	Vice Dean for Graduate Studies
3	Vice Dean for Community Service and Environmental Development
4	Vice Dean for Education and Student Affairs
5	Head of Automotive and Tractor Engineering Department

6	Mechanical Design Engineering Department Head of
7	Head of Mechanical Power Engineering Department
8	Head of Civil Engineering Department
9	Head of Architectural Engineering Department
10	Head of Basic Sciences Engineering Department
11	Program Coordinator Energy Engineering
12	Structural Engineering Program Coordinator
13	Digital Architecture Engineering Program Coordinator
14	Project Management and Sustainable Construction Program Coordinator
15	Automotive Mechatronics Engineering Program Coordinator
16	Director of Quality Assurance Unit
17	Director of Engineering Consultancy Center
18	Director General of the College

Executive Committee

M	*Name*	*Function*
1	Prof. Samir El-Demerdash	Professor, Department of Automotive and Tractor Engineering
2	Prof. Hania Hamdy	Professor, Department of Architectural Engineering
3	Prof. Mohamed Ali Abdel Hamid	Professor, Department of Automotive and Tractor Engineering
4	Prof. Raafat Gad Al-Rub	Professor, Department of Mechanical Design
5	Prof. Dr. Osama Ismail	Professor, Department of Mechanical and Power Engineering

6	Prof. Marwa Al-Najjar	Professor, Department of Physics and Mathematics
7	Prof. Dr. Ahmed Fawzi Fahim	Professor, Department of Mechanical Design
8	Prof. Mahmoud Taha	of Architectural Engineering Professor, Department
9	Assoc. Prof. Nihal Magdy Abdulaziz	Director of Quality Assurance Unit
10	Assoc. Prof. Mona Mansour	Professor, Department of Civil Engineering
11	Prof. Mohamed Fattouh	Engineering Professor, Department of Mechanical and Power
12	Prof. Ahmed Abdel Aleem	Professor, Department of Civil Engineering
13	Doctor Muhammad Tantawi	Lecturer, Department of Civil Engineering
14	Dr. Heba Faruq	Lecturer, Department of Architectural Engineering
15	Dr. Rehab Ahmed	Administrative Director of Quality Assurance Unit

Groups were proposed for the implementation plan in the first phase and these groups were as follows:

M	Goals	Gentlemen of the participants
1-	Excellence in Teaching and Learning	1. Prof. Samir El-Demerdash 2. Prof. Marwa Al-Najjar 3. Prof. Mona Mansour 4. Mohamed Fattouh .Prof
2-	Excellence in scientific research and innovation	5. Prof. Hania Hamdy 6. Prof. Raafat Gad Al-Rub 7. Alif.M.Doctor Ahmed Abdul alim

	8. Assoc. Prof. Nihal Magdy Abdulaziz
3- Excellence in Community Partnership	1. Prof. Dr. Ahmed Fawzi Fahim 2. Prof. Mohamed Ali Abdel Hamid 3. Prof. Mahmoud Taha 4. Assoc. Prof. Dr. Ahmed Yahya

A committee has been formed to prepare the executive plan for the strategic plan in accordance with the decision of the College Council No. (-) dated -/-/---, which consists of:

Department of Civil Engineering

Assoc. Prof. Nihal Magdy Abdulaziz – Prof.M.Doctor Ahmed Abdul alim

Department of Architectural Engineering:

Prof. Mahmoud Taha – Prof. Hania Hamdy

Department of Mechanical Power Engineering

Prof. Mohamed Fattouh - Prof. Osama Ismail

Department of Mechanical Design

Prof. Raafat Gad Al-Rub – Prof. Ahmed Fawzi Fahim

Automotive and Tractors Division

Prof. Samir El-Demerdash – Prof. Mohamed Ali Abdel Hamid

Department of Physics and Mathematics:

Prof. Marwa Al-Najjar – Assoc. Prof. Dr. Ahmed Yahya

2. Faculty metadata

1- Academic leadership of the college

Leadership	Name	Specialization
Acting Dean of the College	**Prof. Dr. Amr Abdel Hady**	Department of Mechanical Design Engineering
Vice Dean for Community Service and Environmental Development	**Prof. Mohamed Basil Emara**	Department of Civil Engineering
Acting Vice Dean for Graduate Studies and Research	**Prof. Dr. Noha Nabil**	Department of Architectural Engineering
Vice Dean for Education and Student Affairs	**Prof. Dr. Waleed Abdulhadi**	Department of Automotive and Tractor Engineering

2- A - Distribution of faculty members in scientific departments 2022/2023

Scientific Department	professor		Emeritus Professor (3)	Total professor on the job (2+3)	Assistant Professor		Total Assistant Professor Emeritus (3)	Total Assistant Professor on the job (2+3)	teacher		Emeritus Teacher on the job (3)	Total teacher on the job (2+3)	Total on the job	Total Recruits (1)
	Total (appointees) (1)	On-the-Job(2)			Total (Appointees) (1)	On the job (2)			Total(s) (1)	On the job (2)				
Mechanical Power Engineering	20	4	9	13	19	11	3	14	23	12	3	15	42	62
Automotive & Tractor	17	5	9	14	4	3	1	4	13	8	2	10	28	34
Architecture	23	5	11	16	22	11	5	16	30	20	-	20	52	75

Civil Engineering	36	7	22	29	23	15	3	18	44	20	5	25	72	103
Department of	29	2	3	5	15	5	5	10	20	13	2	15	30	64
Department of	6	1	2	3	9	2	-	2	13	5	2	7	12	28
Total	131	24	56	80	92	47	17	64	143	78	14	92	236	366

2- B - Distribution of the assisting body in the scientific departments 2022/ 2023

Scientific Department	Assistant Lecturer		Teaching assistant		Total	
	On the job	Total (appointees)	On the job	Total (appointees)	On the job	Total (appointees)
Power Engineering Mechanical	18	32	20	24	٣٨	56
Automotive & Tractor	6	6	10	11	١٦	17
Architecture	30	32	16	18	٤٦	50
Civil Engineering	29	37	32	36	٦١	73
Department of Mechanical	10	12	7	9	١٧	21
Department of Physics and	5	6	11	13	١٦	19
Total	98	125	96	111	194	236

3 . Number and distribution of students

A. Bachelor's degree

The total number of students and their distribution among the different teams during the previous three years.

Scientific Department	Level	Number of students For the academic year 2021-2022		Number of students For the academic year 2022 -	
Prep	Preparatory	٧٣٠		828	
Mechanical Power Engineering	most appropriate	٤٥٤	1397	396	1528
	second	٣٥٤		446	
	Third	٢٩٤		335	
	fourth	295		351	
Automotive & Tractor Engineering	most appropriate	١٢٦	415	201	514
	second	١٠١		116	
	Third	٩٣		96	
	fourth	95		101	
Architecture	most appropriate	١٩٧	578	147	597
	second	١٢٩		182	
	Third	١٢٧		129	
	fourth	125		139	
Civil Engineering	appropriate most	١٨٣	1029	296	1015

	second	٢٢٩		169	
	Third	٢٩٣		219	
	fourth	324		331	
Department of Mechanical Design	most appropriate	٣١	40	١٣٦	160
	second	٩		16	
	Third	-		8	
	fourth	-		0	
Total Numbers		٣٤٥٩		4642	

The total number of students and their distribution to credit hour programs during the previous three years.

Program	Number of students For the academic year 2020-2021	Number of students For the academic year 2021-2022	Number of students For the academic year 2022 - 2023
Power Engineering Program	٩٠	٩٤	124
Structural Engineering Program	١٢	٢٧	73
Digital Architecture Program	٥٨	٧٤	108
Automotive Mechatronics Engineering	٢٢	٦٧	156
Project Management and Sustainable	١٧	٣٣	64
Total	**١٩٩**	**٢٩٥**	**525**

Number of courses for each of the educational programs granted by the college 2022/2023

M	Tutorial Name	Number of courses per program	Ratio of faculty members (on the job) to students
	Prep Band	١٤	١: ٤٢
1	**Mechanical Power Engineering Program**	٦٤	١31 :
2	**Automotive and Tractor Engineering Program**	٦٦	١ : ١٦
3	**Architecture Program**	٦٧	١ : ١٨
4	**Civil Engineering Program**	٧٢	١ : ٢٣
5	**Department of Mechanical Design**	٦٣	١ : ١٢
6	**Power Engineering Program**	٦٤	١ : ٣٧
7	**Program Structural Engineering**	٦٥	١ : ١٢
8	**Digital Architecture Program**	٦٣	١ : ٢٨
9	**Automotive Mechatronics Engineering Program**	٦٢	١ : ٢٢
10	**Project Management and Construction Program**	٧١	1 : 32
	Total Number of Programs (10)	Total number of non-refined courses = Not Specified	Total Faculty to Student Ratio = 1 : 27

Note:

- Secondments were added to faculty members, and the number of (2) seconded = (1) faculty member was calculated when calculating the ratio of faculty members (on the job) to students.
- The percentage of faculty members: students for credit hour programs was calculated based on the fact that the faculty members assigned to teach in the department are entrusted with one or two subjects each term, so the number of (5) faculty members = (1) faculty member was calculated.

B. Postgraduate Studies.

The total number of students enrolled from the academic year 2020/2021 until 2023/2024.

Academic Year / Scientific Departments	٢٠٢١/٢٠٢٠	٢٠٢٢/٢٠٢١	٢٠٢٣/٢٠٢٢	2023/2024
Civil Engineering	٣٦٢	٣٧٧	٤١٨	466
Architecture and Green Urbanism Program	١٩٩	٢٣١	٢٧٣	304
Mechanical Design	١٩	٢١	٢٦	35
Mechanical Power Engineering	١١٦	١٣٤	١٥٣	176
Automotive & Tractor Engineering	٣٤	٤١	٤٣	58
Physics and Engineering Mathematics	١٨	٢١	٣٠	36
Total	٧٤٨	٨٢٥	٩٤٣	1075

A statement of the number of students awarded

Scientific Departments	Degree	٢٠٢١/٢٠٢٠	٢٠٢٢/٢٠٢١	٢٠٢٣/٢٠٢٢	2023/2024
Civil Engineering	Master of Engineering	٨	١٣	٩	2
	Master of	٣٨	٤٥	٣	6

	Engineering Science				
	Doctor	١٣	١٠	٩	2
Architecture	**Master of Engineering**	٢	١	-	-
	Master of Engineering Science	١٤	١٠	٧	8
	Doctor	١٤	٢	٦	5
Green Urbanism Program	**Master of Engineering**	-	-	-	-
	Master of Engineering Science	-	-	١	2
	Doctor	-	-	-	-
Mechanical Design	**Master of Engineering**	-	-	-	-
	Master of Engineering Science	١	٢	٢	2
	Doctor	-	١	١	2
Mechanical Power Engineering	**Master of Engineering**	٩	٤	٣	-
	Master of Engineering Science	١٧	٢٢	٨	2
	Doctor	١	٥	٧	2
Automotive &	**Master of**	١	-	-	-

Tractor Engineering	**Engineering**				
	Master of Engineering Science	٥	١	٣	-
	Doctor	٢	٢	١	-
Physics and Engineering Mathematics	**Master of Engineering**	-	-	-	-
	Master of Engineering Science	١	١	٣	-
	Doctor	-	٢	٢	-
Total		١٢٦	١٢١	**٥٧**	**33**

Statement of registration of scientific theses in postgraduate studies for the previous five years

Scientific Departments	**Degree**	٢٠٢١/٢٠٢٠	٢٠٢٢/٢٠٢١	٢٠٢٣/٢٠٢٢	**2023/2024**
Civil Engineering	**Master of Engineering Science**	٣٦	٤٤	٥٠	25
	Doctor	٦	٦	٨	7
	Master of Engineering	٦	٥	٢٨	16
Architecture	**Master of Engineering Science**	٧	٢٩	٢٧	12
	Doctor	٩	٨	١٠	4
	Master of	-	-	-	-

	Engineering				
Mechanical Design	**Master of Engineering Science**	٣	-	٤	2
	Doctor	٣	١	٣	1
	Master of Engineering	-	-	-	-
Mechanical Power Engineering	**Master of Engineering Science**	١٦	٩	١٠	11
	Doctor	-	١	٥	7
	Master of Engineering	-	٥	١	1
Physics and Engineering Mathematics	**Master of Engineering Science**	٢	-	١	4
	Doctor	٣	٢	١	2
	Master of Engineering	-	-	-	-
Automotive & Tractor Engineering	**Master of Engineering Science**	٢	٢	٣	1
	Doctor	٢	١	٣	-
	Master of Engineering	-	-	-	-
Total		**٩٥**	**١١٣**	**١٥٣**	**93**

Statement of international students enrolled in postgraduate studies for the academic year 2024

Scientific Departments	Number	Country
Civil Engineering	5	2 Saudi – 2 Palestine – 1 Jordan
Architecture	2	1 Syria – 1 Nigeria
Mechanical Design	-	-
Mechanical Power Engineering	1	Syria
Automotive & Tractor Engineering	-	-
Physics and Engineering Mathematics	1	1 Palestine
Total	9	

C. Scientific missions, missions and study vacations (cultural relations) until 28/7/2024

M	Mission Type	Number	M	Mission Type	Number
1	Scientific Conferences	٠	5	Joint supervision missions	٠
2	Internal Missions	٠	6	Study Holidays	٣٣
3	Foreign Missions	٠	7	Special Vacations	-
4	Scientific missions	7			

4. The total distribution of the faculty employees.

A. Number of employees in the administrative apparatus 31/8/2024

	Distribution of employees by specialization						
	General Manager College	Specialized	Office	Artistic	Deputy Services	Temporary	Total
Those on the job	١	٦٩	٥٨	١١	٣١	٢٣	193

Special Vacations	-	10	-	-	١	-	11
Seconded	-	٤	٣	١	-	-	8
Total	١	٨٣	٦١	١٢	٣٢	٢٣	212

B. Ratios of total human resources (by occupancy) in the college to students 2022/2023

	Students	**Faculty Members**	**Faculty Assistants**	**Faculty Members & Associates**	**Administrators**	**Professionals**	**Workers**
Students	4642	12.7١ :	19.7١ :	7.7١ :	29.7١ :	145١ :	1:100.9
Faculty Members		366	1:1.55	1:0.6	1:2.32	11.4١ :	1:7.95
Faculty Assistants			236	1:0.39	1:1.49	7.38١:	1:5.13
Faculty members and their assistants				602	1:3.81	18.8١ :	1:13.1
Administrators					158	4.94١ :	1:3.4
Professionals						32	1:0.69
Workers							46

C- Ratios of those in charge of work to students until 2022/2023

	Students	Faculty Members	Faculty Assistants	Faculty members and their assistants	Total Staff of the College
Students	**4642**	19.7١ :	23.9١ :	10.7١ :	24: 1
Faculty Members		**236**	1.2١ :	0.55١ :	1.22 : 1
Faculty Assistants			**194**	0.45١ :	: 1
Faculty members and their assistants				**430**	1.5 : 1
Staff of the College Total					**193**

5- Educational programs offered by the college

First: Undergraduate Stage:

- Bachelor Program in Mechanical Power Engineering
- Bachelor Program in Automotive and Tractor Engineering
- Bachelor of Architecture
- Bachelor of Civil Engineering Program
- Department of Mechanical Design
- Bachelor of Energy Engineering Program (Credit Hours)
- Bachelor of Structural Engineering Program (Credit Hours)
- Bachelor of Digital Architecture Program (Credit Hours)
- Automotive Mechatronics Engineering Program (Credit Hours)
- Project Management and Construction Program (Credit Hours)

The total number of educational programs offered by the college is (10) programs

Second: Postgraduate Studies:

M	Tutorial name	Number of courses per program
1	Professional Studies Diploma in Technical Studies Diploma	credit hours ١٨+Qualifying course
2	Postgraduate Diploma	credit hours ٣٠
3	Master's Degree in Engineering Master of Engineering (M.Eng.)	(credit hours (research ٦credit hours + ٤٢
4	Engineering Sciences Master's Degree in Master of Science in Engineering (M.Sc.Eng.)	(Credit Hours (Thesis ١٨+Credit Hours ٣٠

5	Doctor of Philosophy degree Doctor of Philosophy (Ph.D.)	18 credit hours + 30 credit hours (thesis)
Total number of programs = 5		Total Number of Courses (Non-Duplicate) = Not Specified

6- Units of a special nature of the college

The number of units of a special nature of the college is (7) seven units in different disciplines and carries out consulting and training work in the field of specialization, which helps to serve the surrounding community and develop the environment, which makes the college a positive role at the level of the surrounding region as well as at the regional level.

Units of a special nature of the college:

1- Mechanical Design Consultancy Unit
2- Training Unit and Specialized Courses
3- Urban Planning Consulting Unit
4- Production workshops and car maintenance workshops unit
5- Consulting and Testing Unit for Civil Engineering
6- Architectural Consultancy Unit
7- Consulting and Testing Unit for Mechanical Engineering

Activities of the Engineering Consultancy Center, Training, Production and Financial Resources achieved by 2022/2023

Statement	Revenue
Civil Engineering Consultancy	338060.15
Mechanical Design Department Consulting	182300

Automotive Department Consulting Unit	381500
Mechanical Power Department Consulting	183000
Productivity processes	"I don't think it's a good idea," he said.
Consumer Protection	283950
Labs Testing	413515
Training work	9400
Total	1791725.15

A statement of the number of stands in the college and its student capacity

M	Number of stands or halls	Student Capacity	Place	Average number of weekly working hours	Total Student Capacity
١	١	٧٠٠	H	٤٥	٧٠٠
٢	١٠	٢٥٠	And	٣٦	٢٥٠٠
٣	١	٢٠٠	C	٣٠	٢٠٠
٤	٢	٢٥٠	C	٣٠	٥٠٠
٥	١	١٤٠	C	٣٠	١٤٠
٦	٤	٣٠٠	A	٣٦	١٢٠٠
٧	٥	١٤٠	And	٣٦	٧٠٠
٨	٣	90	-Chemistry -Physics)	٤٠	270
Total	٢٧				**6210**

B. A statement of the college's computer labs and student capacity.

M	Number of laboratories	Number of devices	Place	Projectors
١	٣	61	Administration Building	٣
٢	١	55	Mechanics Building	١
٣	٢	55	Academic Building	2

3- Vision, Mission and Values

Helwan University Vision

Helwan University seeks to be a leading educational and research institution in technology and arts and distinguished in education and science in accordance with international quality standards.

Helwan University Mission

Helwan University is one of the Egyptian public universities that occupies a prominent position in the field of higher education and scientific research.

The university works to achieve a distinguished institutional performance that supports the production and investment of knowledge towards sustainable development by providing smart and developed educational services in accordance with quality standards, implementing distinguished scientific research and effective competitive movement, which contributes to the advancement of society.

Helwan University Values

University Values: Helwan University is committed to a set of values that it seeks to achieve, and is committed to implementing **them, which are as follows:**

- Belonging and loyalty
- Creativity & Innovation
- Academic Freedom
- Competitiveness & Leadership
- Social and environmental responsibility
- Integrity and transparency
- Economic thought and autonomy
- Youth Empowerment
- Workmanship and professionalism
- Trust & Accounting
- Cooperation and teamwork
- Diversity and respect for difference
- Justice and equal opportunities
- Institutional work and management by achievement

Vision, Mission, Values, Goals and Policies of the Faculty of Engineering, Mataria

Faculty Vision

Regional excellence and leadership in engineering education and scientific research to serve the community

Faculty Mission

- Achieving an advanced educational system that keeps pace with the requirements of the labor market.
- Activating the educational and institutional quality assurance system
- Developing scientific research mechanisms to relate to the current and future needs of the local and regional community
- Developing funding sources and financial resources to support the college's capabilities

Faculty Values

1 - Shura	2 – Cooperation	3 - Competition	4 – Credibility
5- Ethics	6. Transparency	7- Dedication	8 - Academic Freedom and Modernization
9 – Accounting	10. Equality	11 - Affiliation	12. Justice

4: Environmental Analysis (SWOT) of the internal and external environment

4.1 Introduction:

The SWOT analysis of the internal and external environment of the college is the cornerstone of the strategic planning process for the future of the college, as this analysis aims to identify the areas of weakness and strength in the internal environment that directly affect the process of development of the college and its ability to achieve its vision and future goals in order to succeed in influencing or changing the surrounding environment. This analysis also increases the degrees of internal and external awareness of the weaknesses and strengths of the college as an essential step to prepare all college employees to face threats. Projected externally from one angle and invest the opportunities available from another angle, which works to develop the college's competitive potential.

The quadruple environmental analysis goes through several stages, starting with an introductory seminar on the importance of the quadripartite analysis and how to identify the strengths and weaknesses of the internal environment, opportunities and threats to the external environment and the expected benefit from evaluating these points, followed by a survey of all interested parties associated with the college, whether inside or outside the college, in an effort to identify the various points of strength and weakness internally, opportunities and threats

externally from the point of view of all parties. A team formed from the Quality Assurance Unit at the college will collect all the opinions of the participants in the opinion poll to determine the elements of the relative weight measurement form for the different points.

A measurement was made of the relative weight of the points of the four elements of the environmental analysis to determine the strengths and weaknesses of the internal environment and the opportunities and threats to the external environment in a final manner with the relative weight of each of them on the basis that the acceptable point is the one that obtains an approval rate exceeding 65% of the participants in the opinion survey. The following points were concluded for the four elements of environmental analysis, which represent the basis for building a successful strategic plan that reaches the college to achieve its vision and strategic objectives.

4.2 Sources of data collection:

1- **Brainstorming sessions:** Brainstorming sessions were held that included members of the various departments of the college, including faculty members, the assisting body, administrators, students and some of the beneficiary groups of graduates to develop a preliminary perception of the elements of the quadruple analysis.

2- **In-depth group interviews and meetings:** Meetings and discussion groups were held with various groups of the college community: (faculty members - the assisting body - a sample of college students - another sample of college graduates), with the aim of defining the meaning of strengths and weaknesses,

as well as what represent opportunities, and what represent threats in preparation for conducting a survey to identify these points through the point of view of all beneficiary parties.

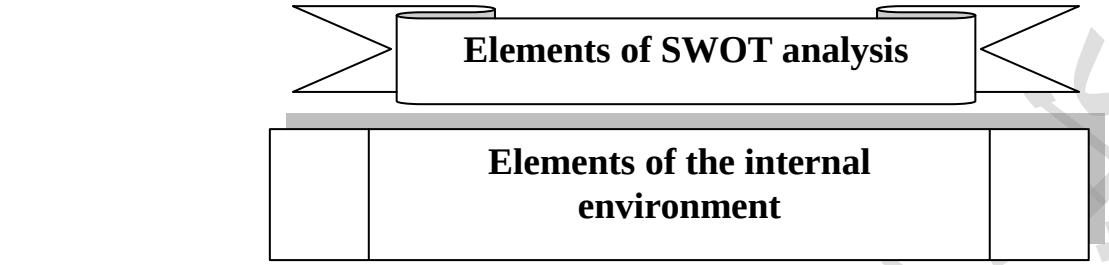
3- **Faculty members and teaching assistants: The opinions of faculty** members (active and full-time professor - assistant professor - lecturer) and the assisting body (assistant teacher - teaching assistant) were surveyed to identify strengths and weaknesses, as well as what represents opportunities, and what represents a threat.

4- **College administrators and employees: A** sample of college administrators and employees were surveyed to identify strengths and weaknesses, as well as what represents opportunities, and what represents a threat in all college facilities and various administrative departments.

5- **Students: A** sufficient sample of college students was surveyed to identify strengths and weaknesses, as well as what represents opportunities, and what represents a threat in all college facilities, various scientific and administrative departments, and the programs and services provided by the college.

6- **Graduates: A** sufficient sample of college graduates in different disciplines were surveyed to identify strengths and weaknesses, as well as what represents opportunities, and what represents a threat in the college's educational programs and services.

7- **Local community members and beneficiaries**: A sample of community members and companies where college graduates work were surveyed to identify strengths and weaknesses, as well as what represent opportunities, and what represents a threat in the college's educational programs and services.



Strengths

1- Four programs (Architecture Engineering Program - Automotive and Tractor Engineering Program - Structural Engineering Program - Energy Engineering Program) obtained program accreditation in 2023.

2- The existence of five credit-hour programs to provide a graduate in demand in the labor market (energy engineering, structural engineering, digital architecture, automotive mechatonics, project management and sustainable construction).

3- The presence of a distinguished faculty with research published in international scientific journals in addition to their contributions to work as consultants for construction and industry companies.

4- The presence of an engineering consultancy and training center in the college that has done distinguished work in the field of consulting with industry.

5- The existence of an infrastructure that allows the use and application of the information management system.

6- The presence of new departments that allow the development of work within the college (Quality Unit - Information Technology Unit - Measurement and Evaluation Unit)

7- The presence of units of a special nature to increase the resources of the college

8- The presence of specialized service departments to support the educational needs of students

9- The presence of multiple laboratories to cover educational and research needs

10- High number of members of the assisting body in various departments.

11- Compatibility of the number of faculty members and the assisting body with the preparation of students in accordance with the standards of the National Authority for Quality Assurance and Quality of Education and Accreditation

12- Credible and transparent senior management

13- The existence of a tendency for the administration to automate administrative work.

14- Agreement on electronic programs to develop and improve the performance of the controls

15- Developing the college journal to publish scientific research and activate international arbitration in it.

16- The existence of a good reputation for the efficiency of the faculty professors, where two ministers of higher education and three university presidents were chosen from the faculty professors, in addition to a number of members of the promotion committees for professors and assistant professors

17- There is support and motivation for outstanding and talented students.

18- Implementation of the credit-hour education system, which will open the way for increasing sources of material funding, which in turn will contribute to the development of education and its environments in various colleges

Weaknesses

1- The continuous shortage of technicians and workers in light of the lack of employment and the exit of workers for pension.

2- The weak ability of some members of the administrative apparatus to deal with computers and modern management methods.

3- The administrative staff of the college needs training courses.

4- The need to equip classrooms with modern teaching methods and increase their number

5- Low efficiency of a clear system for maintenance, whether for infrastructure or laboratory equipment.

6- Lack of availability of professional technicians in some laboratories and workshops

7- Decrease in the number of laboratory training equipment in relation to the number of students

8- The low level of knowledge of technicians and assistants with laboratory equipment, which hinders the educational process.

9- Lack of raw materials in laboratories and workshops to conduct educational experiments.

10- Poor efficiency of suitable computers and printers in different departments.

11- Poor participation of various stakeholders in the design and development of educational programs

Elements of the external environment

Opportunities

1- The geographical location of the college in the capital, next to the cities of male and female students, and close to the industrial centers (in the cities of the tenth of Ramadan, Al-Shorouk, Badr and Al-Obour)

2- Increasing the demand for college graduates from locally and regionally accredited programs.

3- Increasing economic activity in the coming years and growing awareness among national companies about the benefits of cooperating with the college in various projects as a consultant with distinguished scientific expertise.

4- Applying the expansion of cooperation with the entities that provide competitive projects for scientific research, which increases the chances of obtaining financial support.

5- Increasing the demand for credit hour programs in the college and the resulting increase in college income.

6- The presence of a high population density, which represents the marketing of the technical and training capabilities of the college in the surrounding community.

Threats

1- Low salaries of faculty and their assistants.
2- The stability of future annual budgets provided by the state creates a kind of poor ability for future planning and spending difficulties in the college.
3- Brain drain to private universities due to the incentives and rewards they get, unlike public universities
4- Expanding the establishment of private colleges and institutes with their high financial potential, which causes faculty members to attract them
5- The presence of external attraction forces from Arab countries.
6- The weakness of the pre-university education system and the weak ability to influence it.

Steps to prepare the matrix of internal and external environmental factors

- The most important internal strategic factors were identified with a number of 10 to 20 factors, including strengths, weaknesses, according to relative importance.

- A relative weight was set for each strategic factor so that this weight ranges from (1) very important to (0) not so that the sum of the weights of both strengths and weaknesses is more than the correct one.
- The strategic factors were evaluated according to an estimated balance that extends from 1 to 5, where the most important factor in strengths gets the score 5, the important factor gets the grade 4, the average factor of importance on the grade 3, while a simple one gets the grade 2, the factor that represents a major weakness gets the score 1, which represents a weakness
- The weighted weight of each strategic factor was calculated by the relative weight product of the assessment.
- Weighted points for all factors were collected to obtain an assessment of internal factors (strengths and weaknesses) and external factors (points of opportunity and threats).

Quantitative Analysis Matrix

Analysis of internal environmental factors

Strengths And Weaknesses

Table No. (1) Matrix of internal environmental factors (relative weight and ranking at the Faculty of Engineering in Matareya)

Weighted points	Evaluation	Relative weight	Weaknesses	Weighted points	Evaluation	Relative weight	Strengths	M
٠.٠٧٤	2	0.037	The continuous shortage of technicians and workers in light of the lack of employment and the .exit of workers for pension	0.1605	٣	٠.٠٥٣٥	Four programs (Architecture -Engineering Program Automotive and Tractor Structural -Engineering Program Energy -Engineering Program Engineering Program) obtained ٢٠٢٣program accreditation in	1
0.09	2	0.045	of some members The weak ability of the administrative apparatus to deal with computers and modern .management methods	0.246	٤	٠.٠٦١٥	hour -five credit The existence of programs to provide a graduate in demand in the labor market engineering, structural energy) engineering, digital architecture, automotive mechatonics, project management and sustainable .(construction	2
0.085	2	0.0425	The administrative staff of the .college needs training courses	0.2648	٤	٠.٠٦٦٢	The presence of a distinguished faculty with research published in international scientific journals in addition to their contributions to work as consultants for construction and .industry companies	3
0.011	2	0.0055	classrooms with equip The need to modern teaching methods and	0.1012	٤	٠.٠٢٥٣	The presence of an engineering consultancy and training center	4

			increase their number				in the college that has done work in the field of distinguished consulting with industry.	
0.132	3	0.044	a clear system Low efficiency of for maintenance, whether for infrastructure or laboratory equipment.	0.1088	٤	٠.٠٢٧٢	The existence of an infrastructure that allows the use and application of the management system information.	5
0.036	2	0.018	of availability of professional Lack in some laboratories technicians and workshops	0.104	٤	٠.٠٢٦	The presence of new departments that allow the development of work within the college (Quality Unit - Information Technology Unit Measurement and Evaluation (Unit	6
0.0486	٢	0.0243	Decrease in the number of laboratory training equipment in relation to the number of students	0.1359	٣	٠.٠٤٥٣	The presence of units of a special nature to increase the resources college of the	7
0.072	1	0.072	level of knowledge of The low technicians and assistants with laboratory equipment, which hinders the educational process.	0.1086	٣	٠.٠٣٦٢	The presence of specialized service departments to support the educational needs of students	8
0.0234	٢	0.0117	Lack of raw materials in laboratories and workshops to conduct educational experiments.	0.1356	٣	٠.٠٤٥٢	The presence of multiple laboratories to cover educational and research needs	9
0.0125	1	0.0125	suitable Poor efficiency of computers and printers in different departments.	0.1047	٣	٠.٠٣٤٩	Compatibility of the number of faculty members and the assisting body with the preparation of students in accordance with the standards of the National Authority for	10

							Assurance and Quality Quality of Education and Accreditation	
0.0116	1	0.0116	Poor participation of various stakeholders in the design and development of educational programs	0.1389	٣	0.0463	Credible and transparent senior management	11
-	-	-	-	0.1359	٣	0.0453	The existence of a tendency for the administration to automate .administrative work	12
-	-	-	-	0.165	٣	٠.٠٥٥	Agreement on electronic programs to develop and the performance of the improve controls	13
-	-	-	-	0.099	٣	٠.٠٣٣	Developing the college journal to publish scientific research and activate international arbitration .in it	14
-	-	-	-	0.147	٣	0.049	The existence of a good reputation for the efficiency of the faculty professors, where two ministers of higher education and three university presidents were chosen from the faculty professors, in addition to a number of members of the for promotion committees professors and assistant professors	15
-	-	-	-	0.036	٣	٠.٠١٢	There is support and motivation for outstanding and talented	16

							.students	
-	-	-	-	0.028	٢	٠.٠١٤	-Implementation of the credit hour education system, which will open the way for increasing sources of material funding, which in turn will contribute to the development of education and its environments in various colleges	17
0.5961		**٠.٣٢٤١**	**Total**	**2.2199**		**٠.٦٧٥٩**	**Total**	

Quantitative Analysis Matrix

External Environmental Factor Analysis

Opportunities and Threats

Table No. (2) Matrix of external environmental factors (relative weight and ranking at the Faculty of Engineering in Matareya)

Weighted points	Evaluation	Relative weight	Threats Threatens	Weighted points	Evaluation	Relative weight	الفرص Opportunities	M
٠.٠٣١٢	٢	٠.٠١٥٦	Low salaries of faculty .their assistants and	0.5716	٤	٠.١٤٢٩	The geographical location of the college in the capital, next to the cities of male and female students, and close to the industrial centers (in the cities -of the tenth of Ramadan, Al (Obour-Shorouk, Badr and Al	1
0.0161	١	0.0161	of future The stability annual budgets provided by the state creates a kind of poor ability for planning and future spending difficulties in .the college	0.4509	٣	0.1503	Increasing the demand for locally from college graduates and regionally accredited .programs	2
0.0692	٢	0.0346	rivate Brain drain to p universities due to the incentives and rewards they get, unlike public universities	0.1536	٤	0.0384	Increasing economic activity in the coming years and growing awareness among national companies about the benefits of cooperating with the college in various projects as a consultant with distinguished scientific	3

Weighted points	Evaluation	Relative weight	Threats Threatens	Weighted points	Evaluation	Relative weight	الفرص Opportunities	M
							.expertise	
0.2114	٢	0.1057	Expanding the establishment of private colleges and institutes with their high financial potential, which causes faculty members to attract them	0.0699	٣	0.0233	the expansion of Applying cooperation with the entities that provide competitive projects for scientific research, which increases the chances of .obtaining financial support	4
0.3366	٢	0.1683	The presence of external attraction forces from .Arab countries	0.1734	٣	0.0578	Increasing the demand for in the credit hour programs college and the resulting .increase in college income	5
0.163	١	0.163	-The weakness of the pre university education the weak and system .ability to influence it	0.336	٤	0.084	The presence of a high population density, which represents the marketing of the training technical and capabilities of the college in the .surrounding community	6
0.8275		**٠.٥٠٣٣**	**Total**	**1.7554**		**٠.٤٩٦٧**	**Total**	

By analyzing the previous tables, it is clear that there are (18) strengths compared to (11) weaknesses, and by calculating the total weighted weight of the strengths (2.2199) while the weaknesses reached (0.5961), and accordingly, the strategic position

of the college shows the superiority of the strengths, but the executive plan of the college must work to reduce the weaknesses by developing strategies, plans and programs for confrontation through its executive plan.

Although the number of opportunities available to the college is (6) points against the same number of threat points (6) points at the level of all aspects of the educational process, but by calculating the total weighted weight of the opportunity points (1.7554) while the threat points reached (0.5033), which reflects the existence of an encouraging external environment, and then the executive plan of the college must take the necessary measures to invest opportunities and reduce the impact of threats by developing strategies, plans and programs to achieve this.

Qualitative analysis matrix (SWOT)

Weaknesses(W) (0.5961)	**Strengths(S)** (2.2199)	
Development and Improvement Strategy (2.3515)	**Expansion and Growth Strategy (3.9753)**	**Opportunities(O)** (1.7554)
Contraction Strategy (1.0994)	**Strategy Stability (2.7232)**	**Threat(s)** (0.5033)

Through the analysis of the SWOT as well as the previous table, it is clear that the most appropriate strategy for the college is the expansion and growth strategy, which means the need to formulate the strategic objectives of the college during the current plan so that it works to expand the current policies and projects and ensure the continuous growth of the current achievements.

After the members of the strategic planning team at the college have finished studying, diagnosing and analyzing the variables and strategic factors in the external environment of the college, and then identifying opportunities and threats.

Since the gap is the difference between reality and hope, after studying the current situation of the college, many gaps were obtained.

- The beneficiaries of the college expect to provide many services in various engineering fields related to the development process, as well as that the graduate is at a certain level, and the weakness of communication channels between the college administration and the beneficiaries of the services provided by the college is the main reason for the existence of this gap
- Although the college administration is aware of the expectations of customers and beneficiaries in terms of the quality of consulting and research services, community service and environmental development, there is a discrepancy between the perceptions of the college administration in what satisfies customers and beneficiaries and the translation of these perceptions into service quality practices. The reason for this gap is due to the following combination of factors:
- Weak resources and funding to provide infrastructure and develop equipment, laboratories, libraries and all activities that support quality.
- The current semester system does not provide higher standards of skill and knowledge among graduates of the College of Engineering, as the applied field requires a great deal of continuity and practical training and follow-up requires longer practices of work.

to To address this gap, the college administration needs to find other sources of funding for scientific and service activities um for all services provided education practices, and this gap is considered medi-ensure the quality of services and increase self by the college. In order to reach clear and specific strategies for the college, and using the results of SWOT, a set of strategic alternatives have been concluded that can be applied, as shown below, on which the executive plan of the strategic plan is based.

Strategic goals and objectives

1- Discrimination in teaching and learning

This goal includes the governing elements of excellence in teaching and learning, the quality assurance system for educational outcomes, institutional and academic accreditation of programs, admission systems, student support and academic advising, teaching and learning strategies, student acquired and distinguished practical experiences, evaluation and examination systems, and communication with graduates. This area also includes related aspects including equality, wider participation, international competitiveness, and accessibility.

Strategic Objectives

1. An effective educational system that implements quality assurance systems.
2. Accredited academic programs and accredited standard laboratories that serve the requirements of society and the needs of the labor market.
3. An attractive educational system for international and international students
4. A modern evaluation system in line with international tests
5. A graduate with distinguished specifications and standards

2- Excellence in scientific research and innovation

This goal includes the breadth and quality of scientific research in the college, the production and exchange of knowledge and scientific publishing, the role of the college in implementing the state's plan in scientific research and innovation, marketing its outputs, international cooperation, effective partnership with state sectors, research centers and foreign universities, providing the climate and capabilities to support and motivate young researchers for scientific creativity and innovation, and the goal also includes graduate programs and missions related to development.

Strategic Objectives

1. Flexible and transparent system to support publication and participation in international periodicals, conferences and seminars
2. Advanced research base in the college
3. Developing and diversifying sources of funding for scientific research and innovation

3- Excellence in community partnership

This goal includes the principles and rules of sustainable social responsibility in the college community and society as a whole, and includes aspects related to partnership with the local and international community and strategic partners, and community participation in development, evaluation and accounting, as well as highlighting the college's cultural, intellectual and technological identity and its role in community service and environmental development.

Strategic Objectives

1. An advanced system capable of serving the local and regional community
2. Real community participation in the planning, development, follow-up and evaluation of the strategic plan of the college
3. Increase the volume of targeted services provided to the community
4. Raising awareness and introducing the activities and activities of the college within a framework of transparency and accountability.

Public Policies, Faculty of Engineering, Mataria

Public policies:

1. The college's leaders are committed to adopting the principle of strategic planning at the institutional level, the principle of strategic management at the executive level, and the principle of self-evaluation of the overall performance of the institution with the help of the quality unit.

2. The college works to increase institutional capacity by announcing documented criteria for the selection of academic and administrative leaders and that these criteria are fair and objective.

3. The college works to raise the efficiency of administrative leaders and employees continuously by announcing integrated plans for human development that serve the job description and targeted skills for each job.
4. The college develops the organizational structure by adding new units necessary to develop performance, organize the relationship between the units and members of the structure, and determine the tasks and authorities in a manner commensurate with the practical and scientific nature of the college.

In the field of education and learning:

1. The college is committed to increasing educational effectiveness by developing and constantly improving study programs and developing the infrastructure that serves them to reach a distinguished graduate capable of competing in the labor market with the adoption of national academic standards NARS and is also committed to developing programs continuously in response to the changes in the labor market with a documented and announced description of these programs.
2. The college is working on reviewing and updating admission and transfer policies, dealing with international students at the undergraduate and postgraduate levels, and providing support for students and people with special needs.
3. The college develops a strategy for teaching and learning that focuses on the development of self-education and practical skills needed by the engineering profession and adopts modern education patterns and builds the development of the student's understanding and innovation ability and these strategies include a mechanism that seeks to solve the

problems of excessive numerical density, private lessons, inadequate performance of some teaching staff and assistants, and lack of laboratory capabilities. It also includes the development of methods of evaluating students and focusing on measuring the student's understanding, as well as working on the existence of a mechanism to encourage students to pose their problems and gain their confidence by responding to them and providing Solutions in the fastest time.

4. The college administration makes plans to develop the skills and competencies of the teaching staff to achieve the targeted outputs of education and scientific research and plans to appoint the teaching staff and assistants in the future.

In the field of scientific research

1. The college works to increase the contribution of the teaching staff in enriching engineering sciences and solving industry problems with joint applied research by providing a positive environment for advanced scientific research, developing the necessary resources for that, and working to encourage them with moral and material appreciation.
2. The college is committed to announcing documented and approved standards that determine the commitment of faculty and employees to intellectual property rights and publishing.

and in the field of community service and environmental development:

1. The college develops an integrated plan to serve the industry and the surrounding community so that the beneficiary parties participate in the development of educational and research programs, as well as take advantage of the college's capabilities in engineering consultations, vocational training and community service.
2. The college administration develops a plan to increase financial resources on its own to achieve the adequacy of annual financial resources for the activities of the strategic plan.

The link between the college's strategy and the university's strategy

To develop a strategy for the college in the next stage, it was necessary to review the vision, mission and goals to set the strategic goals of the college, and the vision and mission were reviewed by the administration, faculty members, students and employees of the college (internal environment) as well as by companies and engineering and industrial institutions in which the college graduates and the rest of the beneficiaries (external environment) The College Council has adopted the vision and mission at the beginning of the plan report.

By reviewing the college's vision and mission with the university's vision and mission, it is clear that there is a clear consistency between the college's vision and the university's vision, and both missions focus on providing high-quality study programs to reach a distinguished graduate capable of competing in the labor market and raising the efficiency of faculty members in the fields of education and scientific research and on active participation in the service of the surrounding community, industry institutions and construction companies.

Also, the Environmental Analysis (**SWOT)** concluded that the strategic plan of the faculty must be developmental expansionary as the weight weaknesses more than strengths to overcome this problem, either the available opportunities and threats are almost equal and this trend is consistent with the direction of the university as the university's plan is based on the strategy of development and expansion because of the specializations rarely found in other Egyptian universities.

1. **Identify available sources of funding.**

The sources available to provide funding at the present time have been identified as follows:

- Engineering Consultancy Center
- Themed Units
- New programs in credit hours (Energy Engineering - Structural Engineering - Digital Architecture Engineering - Automotive Micro Engineering - Project Management and Construction Engineering).

2. **Determine the priorities of development and improvement plans as well as the follow-up and evaluation system:**

The priorities of development and improvement, which can be accomplished in the following system of development, improvement, follow-up and evaluation plans, have been identified: which will be implemented within five years, interspersed with the college's submission to the authority for accreditation to renew the accreditation and the attached executive plan, explaining the objectives, priorities, duration of implementation and who is responsible for it for each of the objectives.

Executive Plan for the Strategic Plan 2023-2025

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into				
Discrimination in teaching and learning	An effective educational system that implements quality assurance systems.	Developing and automating the work of the Quality Assurance Unit.	October 2023	October 2024	Director of Quality Unit	Databases of all Quality Unit business documents	Director of Quality Assurance Unit	50
	Accredited academic programs and accredited standard laboratories that serve the requirements of society and the needs of the labor market.	Rehabilitation of 3 laboratories for international accreditation	May 2023	May 2024	Lab Supervisors	Number of accredited laboratories	Dean of the College	150
		Qualifying 3 Accreditation Programs	May 2023	May 2024	Program Coordinators	Number of Accredited Programs		
		Introducing new undergraduate and postgraduate programs in modern disciplines with a credit-hour system	February 2023	May 2024	Vice Dean for Graduate Studies and Student Affairs	Number of new programs added	Dean of the College	200
		Developing the infrastructure of the workshop and automotive building and developing the laboratory of the cars and tractors department	February 2023	May 2024	Vice Dean for Graduate Studies and Student Affairs, Director General of the	Increase the number of students and increase the services and training	Dean of the College	150

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into				
					College	provided to students and the outside community		
	A modern evaluation system in line with international tests	Strengthening the Measurement and Evaluation Unit by Developing its Capabilities	October 2023	January 2024	Director of Measurement and Evaluation Unit	Number of qualified people in the unit of measurement and evaluation	ector of Dir Quality Assurance Unit	80
		Training the employees of the evaluation unit on the latest evaluation and follow-up systems	October 2023	October 2024	Director of Measurement and Evaluation Unit	Number of training courses and beneficiaries	of Director Quality Assurance Unit	10
		Developing the control system and graduates to keep pace with modern requirements	October 2023	October 2024	Vice Dean for Student Affairs	Abbreviation percentage at the time of announcing the result	Dean of the College	12
		Activating the annual training plan to develop the skills of students and graduates to keep pace with the developments	September 2023	September 2024	Director of Training Unit	Percentage of graduates enrolled in the labor market	Vice Dean for Community and Environmental Affairs	100

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into				
		and changes in the requirements of the labor market.					Director of Quality Assurance Unit	
		Develop protocols with labour market owners on employment and employment	April 2023	September 2025	Vice Dean for Community and Environmental Affairs	Percentage of graduates enrolled in the labor market	Dean of the College Director of Quality Assurance Unit	50
Excellence in scientific research and innovation	Flexible and transparent system to support publication and participation in international periodicals, conferences and seminars	Establishing a mechanism system to monitor and compile research activities and what is published internationally or locally	January 2023	January 2024	Vice Dean for Graduate Studies	Number of published research papers per faculty member	Dean of the College Director of Quality Assurance Unit	80
		Developing a culture of respect for intellectual property and copyright through the use of Pligarism software	January 2023	October 2024	Director of Information Technology Unit	Number of users of the program, percentage of research and messages to which the program is applied	Dean of the College Director of Quality Assurance Unit	50

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into				
	Advanced research base in the college	Create a database for postgraduate studies	March 2023	September 2025	Vice Dean for Graduate Studies	Complete up-to-date research databases	Director of Quality Assurance Unit	50
		Updating the research plan of the college and linking it to the local, regional and international labor market	September 2023	March 2025	Vice Dean for Graduate Studies and Scientific Departments	Percentage of college participation in the labor market	Dean of the College Director of Quality Assurance Unit	100
		Expansion of graduate programs in advanced research fields	January 2023	July 2024	Vice Dean for Graduate Studies and Scientific Departments	Number of graduate programs added	Dean of the College	80
		Enable undergraduate and graduate students to participate in research projects	October 2023	October 2024	Vice Dean for Graduate Studies	Number of students participating in research projects	Dean of the College	120
	Developing and diversifying sources of	Development of the graduate and interdisciplinary studies sector	September 2024	September 2025	Vice Dean for Graduate Studies	Number of new academic programs	Dean of the College	80

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into				
	funding for scientific research and innovation	Communicate with the relevant authorities locally and internationally to finance projects, scientific research and innovation	October 2023	October 2025	Vice Dean for Community Service Affairs	Number of external partnerships and number of research funded	Dean of the College	100
		Expanding joint research with state sectors and external institutions	January 2023	September 2024	Vice Dean for Community Service Affairs	Number of marketed research	Dean of the College	80
		Obtaining innovative research projects	September 2023	January 2025	Vice Dean for Graduate Studies	What has been applied from the college's research plan	Dean of the College	120
Excellence in Community Partnership	An advanced system capable of serving the local and regional community	Development of units of a special nature of the college	November 2023	November 2025	Vice Dean for Community Service	Customer satisfaction rate with special units - The percentage of increase in the return of units of a special nature	Dean of the College	150

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into				
		Developing specialized advisory centers in the college	October 2023	May 2024	Vice Dean for Community Service	Percentage of increase in return from consulting centers	Dean of the College	120
		Establishing training and development units for engineering skills to achieve sustainable learning	December 2023	December 2025	Skills Center Development Project Manager	Number of trainees in the unit	Dean of the College	25
	Real community participation in the planning, development, follow-up and evaluation of the strategic plan of the college	Encouraging community parties to participate in the governing committees and councils of the college	January 2023	January 2024	Dean of the College	Preparing participants in committees and councils from outside the college	Dean of the College	120
		Developing regulations governing flexible participation in community development and solving community problems	February 2023	November 2024	Vice Dean for Community Service	Number of partnerships and supporters of the university	Dean of the College	80

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into				
		Increase interaction with the community to participate in its development	October 2023	October 2025	Vice Dean for Community Service	Number of agreements or projects implemented in partnership with the outside community	Dean of the College	50
		Preparing cooperation protocols with international and regional universities	March 2023	September 2025	Vice Dean for Graduate Studies	Mutual visits – high employment rate of graduates	Dean of the College	75
	Increase the volume of targeted services provided to the community	Development of the Community Service and Environment Affairs Sector	January 2023	January 2024	Vice Dean for Community and Environmental Affairs	Number of agreements with partners	Dean of the College Director of Quality Assurance Unit	25
		Continuity of job qualification for graduates	September 2023	September 2025	Vice Dean for Community and Environmental Affairs	Number of Passed the Program	Dean of the College Director of Quality Assurance	50

General objectives	Strategic Objectives	Activities and tasks	Period		Responsibility for implementation	Follow-up and performance evaluation indicators	Follow-up responsibility	Budget in thousands (EGP)
			Who is it	into			Unit	
	Raising awareness and introducing the activities and activities of the college within a framework of transparency and accountability.	Development of the Training and Engineering Consultancy Center	January 2023	October 2024	Dean of the College	Number of implemented projects - Number of training courses	Dean of the College Director of Quality Assurance Unit	50
		Publicity and definition of the activities of the college internally and externally.	March 2023	March 2025	Dean of the College	Number of seminars and events - the volume of information on the website	Director of Quality Assurance Unit	25
		College participation in community development	March 2023	January 2024	Vice Dean for Community and Environmental Affairs	The size of the college's contribution to development	Dean of the College	150