

**E-Just Pre-feasibility Assessment Report**

## Enrollments projection for the first ten years

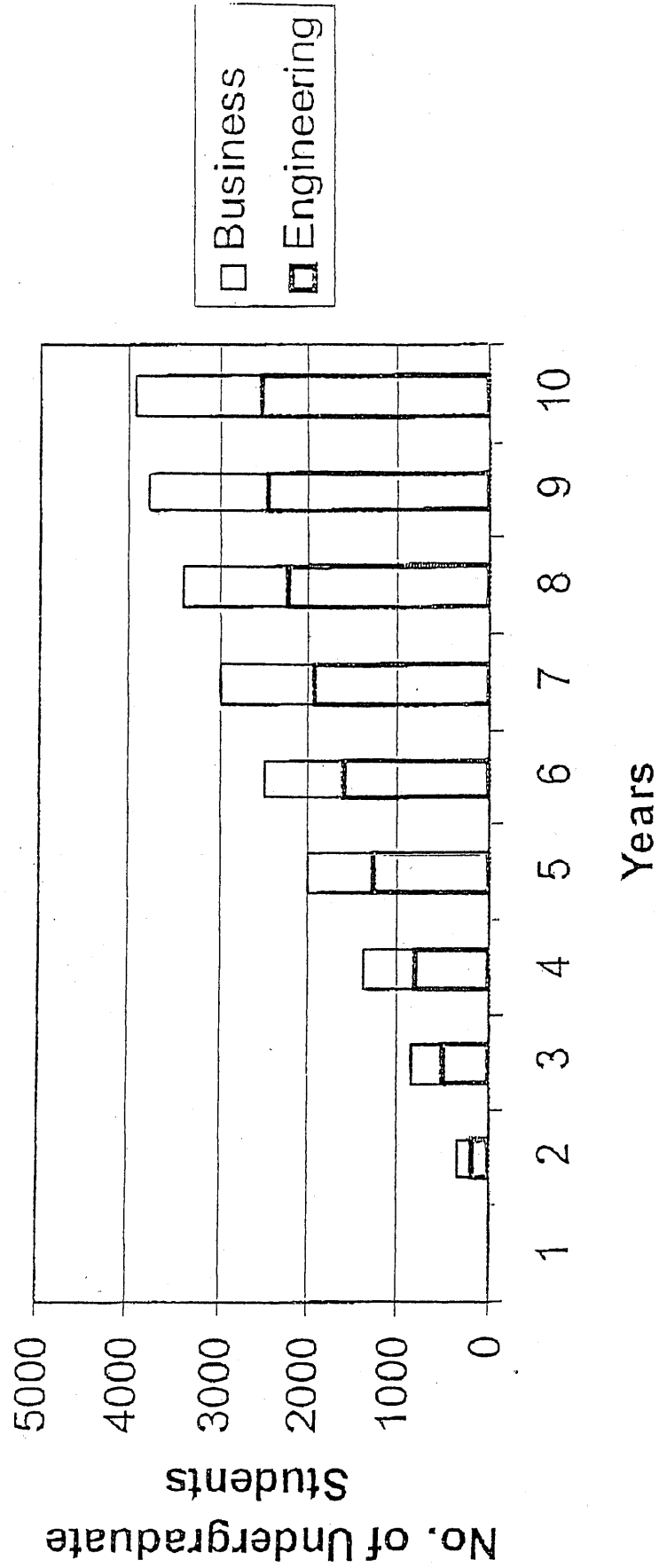
### Undergraduate Enrollment Projections in Engineering

Faculty of Engineering	Preparation Year	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
<u>Department of Electrical, Electronic &amp; Computer Engineering</u>										
Control & Systems		0	50	100	150	200	225	250	275	300
Computer & Communication		50	100	150	200	225	250	275	300	300
Electronic Device		0	0	0	50	100	150	200	225	250
<u>Department of Mechanical &amp; Manufacturing Engineering</u>										
Industrial & Management System		50	100	150	200	225	250	275	300	300
Precision		0	0	0	50	100	150	200	225	250
Mechatronics & Robotics		50	100	150	200	225	250	275	300	300
<u>Department of Material and Chemical Engineering</u>										
Chemical & Petrochemical		50	100	150	200	225	250	275	300	300
Nano- Science & Nano- Engineering		0	0	0	50	100	150	200	225	250
Resources & Environmental		0	50	100	150	200	250	275	300	300
<b>Total Engineering</b>		200	500	800	1250	1600	1925	2225	2450	2550

Undergraduate Enrollment Projections in Business

Faculty of Business	Preparation Year	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
<u>Department of International business &amp; Humanities</u>										
International Business Management		50	100	150	200	225	250	275	300	300
Cross-Cultural Management		25	50	75	100	125	150	175	200	200
Management of Technology		25	50	75	100	125	150	175	200	200
<u>Department of Egyptology &amp; Japanology</u>										
Egyptology		0	25	50	75	100	125	150	175	200
Japanology		0	25	50	75	100	125	150	175	200
Tourism studies		50	100	150	200	225	250	275	300	300
<b>Total Business</b>		<b>150</b>	<b>350</b>	<b>550</b>	<b>750</b>	<b>900</b>	<b>1050</b>	<b>1200</b>	<b>1350</b>	<b>1400</b>

# Undergraduate Enrollments Projection



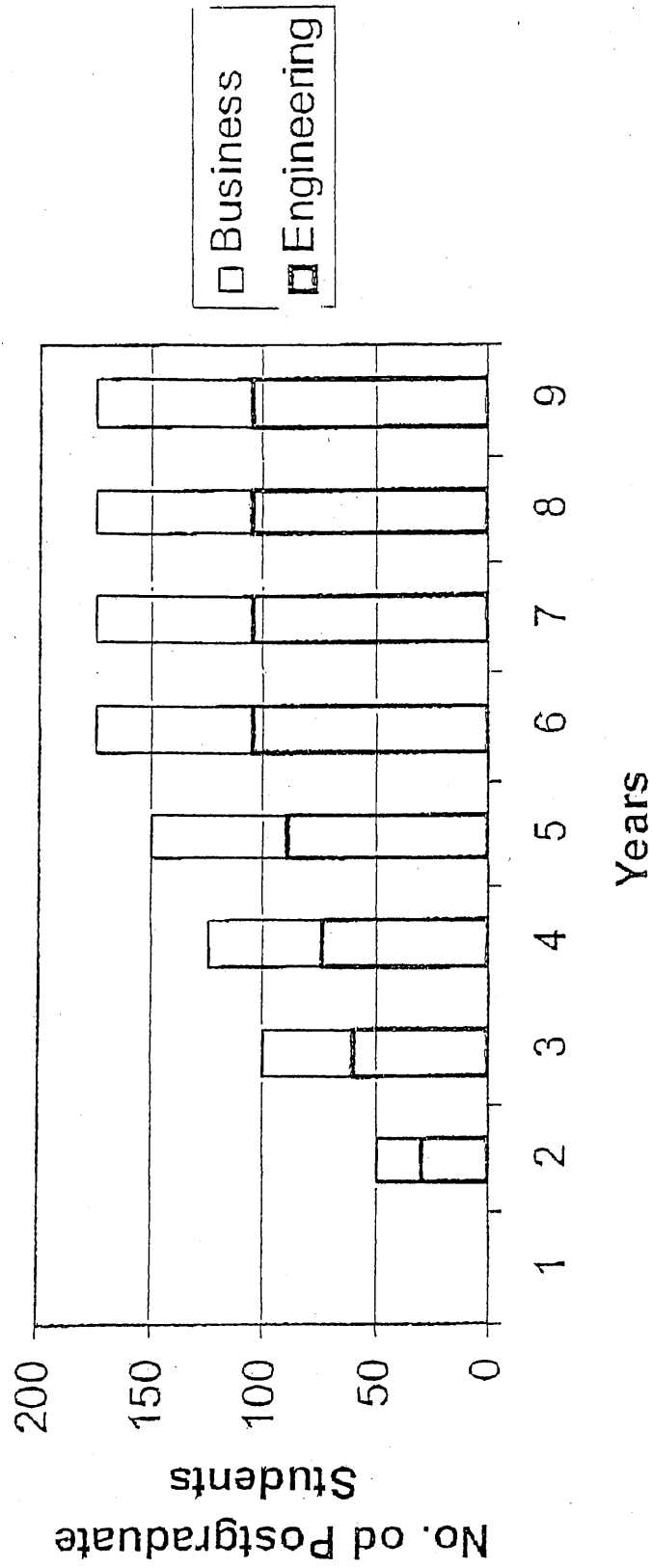
**Postgraduate Enrollment Projections in Engineering**

Engineering	preparation	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
Control & Systems	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Computer & Communication Electronic Device	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Industrial & Management System Precision	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Mechatronics & Robotics	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Chemical & Petrochemical Nano- Science & Nano-Engineering	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Resources & Environmental										
<b>Total Engineering</b>		<b>0</b>	<b>30</b>	<b>60</b>	<b>75</b>	<b>90</b>	<b>105</b>	<b>105</b>	<b>105</b>	<b>105</b>

**Postgraduate Enrollment Projections in Business**

Business	preparation	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
International Business Management	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Cross-Cultural Management Management of Technology	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Egyptology Japanology	Msc		10	20	20	20	20	20	20	20
	PhD		0	0	5	10	15	15	15	15
Tourism studies										
<b>Total Business</b>		<b>0</b>	<b>20</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>70</b>	<b>70</b>	<b>70</b>

## Postgraduate Enrollment Projections



## The estimated budget for the first four years (after the preparation year)

Based on my visit to the proposed site I have observed that the 600,000 m<sup>2</sup> site is well organized and highly equipped with almost brand new lab equipment, excellent auditoriums, meeting and conferences rooms, workshops, sports facilities, and has a very pleasant landscape. Though most of the labs are designed as educational and training labs for undergraduate, they can serve also as outstanding research labs especially in chemistry, chemical engineering, materials, electrical engineering, and manufacturing. The existing libraries need to be strengthened. Also, it may be necessary to install a modern integrated IT network that facilitates both the university management as well as the educational process. The preliminary budget for the first 4 years includes the following main items.

### 1. Operating (running) expenses:

1. Wages and salaries (including fringe benefits).
2. Consumables (lab material, spare parts...) and Stationary
3. Building maintenance
4. Lab equipment maintenance
5. Building depreciation
6. Lab equipment depreciation
7. Landscape maintenance
8. Utilities and communication.
9. Student services
10. Staff and employees services
11. Miscellaneous and contingencies.

### 2. Investment expenses

1. Pre-operating expenses (consultations, curricula building, experts, travel ...)
2. Libraries (book, periodicals and electronic)
3. Educational IT network (soft and hardware)
4. Management Information System MIS network MIS (soft and hardware)
5. Additional research lab equipment (as needed)
6. Transportation vehicles
7. Miscellaneous

### 1. Operating (running) expenses:

#### 1.1 Wages and salaries (Including fringe benefits).

##### 1.1.1 Academic Staff:

Table 1 shows the number and salaries (including benefits) of the academic staff at full operation (fourth year) of university.

Table 1: Number and salaries of the academic staff at full operation of the university.

	Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
Engineering	Professors	9	15,000	3,750	18,750	168,750
	Associate Professor	9	10,000	2,500	12,500	112,500
	Assistant Professors	18	6,000	1,500	7,500	135,000
	Teaching Assistants	18	3,000	750	3,750	67,500
Business and Humanities	Professors	6	15,000	3,750	18,750	112,500
	Associate Professor	6	10,000	2,500	12,500	75,000
	Assistant Professors	12	6,000	1,500	7,500	90,000
	Teaching Assistants	12	3,000	750	3,750	45,000
Basic Sciences	Professors	3	15,000	3,750	18,750	56,250
	Associate Professor	6	10,000	2,500	12,500	75,000
	Assistant Professors	6	6,000	1,500	7,500	45,000
	Teaching Assistants	6	3,000	750	3,750	22,500
<b>Total</b>						<b>1,005,000</b>

Table 2 shows the percentage of the academic staff to be hired during the first four years (after the preparation year) (until reaching full operation)

Table 2: Percentage of academic staff to be hired during the first four years (after the preparation year).

	% Staff to be appointed in 1 <sup>st</sup> . year	% Staff to be appointed in 2 <sup>nd</sup> . year	% Staff to be appointed in 3 <sup>rd</sup> . year	% Staff to be appointed in 4 <sup>th</sup> . year
Engineering	25%	25%	25%	25%



Business and Humanities	25%	25%	25%	25%
Basic Sciences	50%	25%	25%	

Table 3 shows the academic staff projections for the first four years (after the preparation year).

**Table 3: Academic staff projections.**

	Total No. of Academic Staff in the 1 st. Year	Total No. of Academic Staff in the 2 nd. Year	Total No. of Academic Staff in the 3 rd. Year	Total No. of Academic Staff in the 4 th. Year
Engineering	14	28	42	54
Business and Humanities	12	24	36	48
Basic Sciences	10	15	21	
<b>TOTAL</b>	<b>36</b>	<b>67</b>	<b>99</b>	<b>102</b>

Figure 1 shows the academic staff projections for the first four years (after the preparation year).

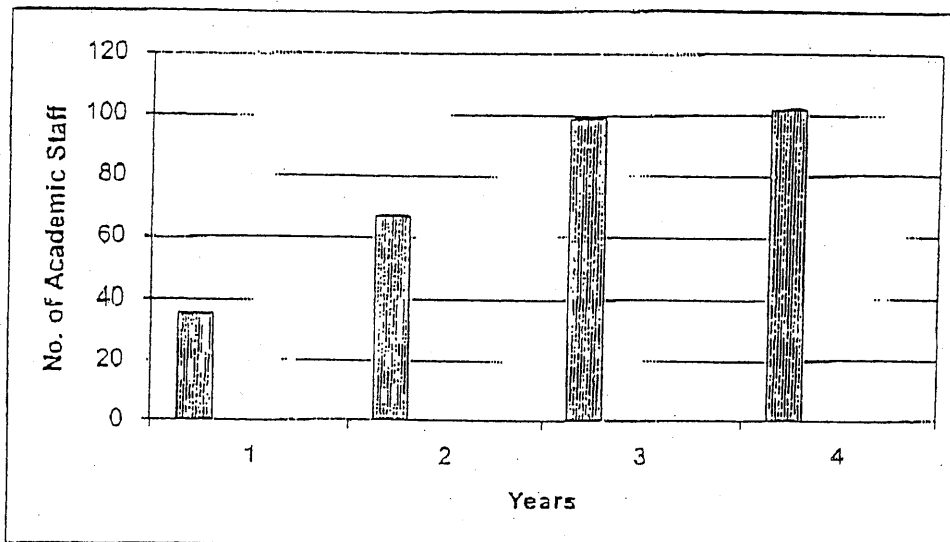


Figure 1: academic staff projections

Table 4 shows the development of the academic staff salaries and benefits over the first four years (after the preparation year):

Table 4: The development of the academic Staff salaries and benefits.

	1 st. year	2 nd. year	3 rd. year	4 th. year
Engineering	120,938	241,875	362,813	483,750
Business and Humanities	80,625	161,250	241,875	322,500
Basic Sciences	99,375	149,063	198,750	198,750
<b>TOTAL</b>	<b>300,938</b>	<b>552,188</b>	<b>803,438</b>	<b>1,005,000</b>

Figure 2 shows the development of the academic staff salaries and benefits over the first four years (after the preparation year).

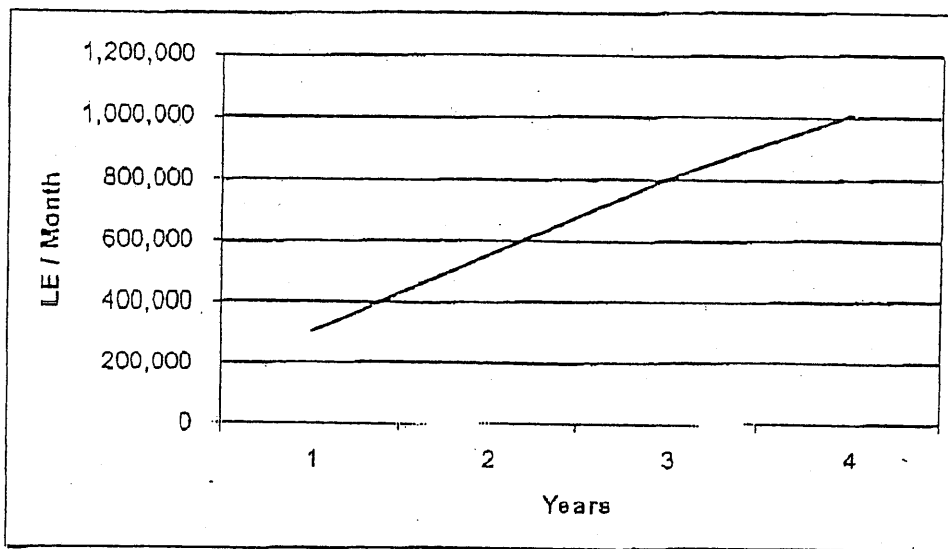


Figure 2: Development of academic staff salaries and benefits over the first four years (after the preparation year).

#### 1.1.2 Non-Academic Staff:

Table 5 shows the estimate numbers and salaries of non academic staff at full operation.

Table 5: Number and salaries of the non-academic staff at full operation of the university:

	Item	No.	Salary (LE/month)		Salary + Benefits and allowances (LE/month)	Total
Engineering	Administrative and Secretarial	30	1,000	250	1,250	37,500
	Lab Technicians	60	2,000	500	2,500	150,000
	Workshop technicians	20	2,000	500	2,500	50,000
	Maintenance staff	30	2,000	500	2,500	75,000
	Helpers	30	750	188	938	28,125
Business and Humanities	Professors	6	15,000	3,750	18,750	112,500
<b>Total</b>						<b>453,125</b>

Table 6 shows the percentage of the non-academic staff to be hired in the first four years (after the preparation year) (until reaching full operation)

Table 6: Percentage of academic staff to be hired during the first four years (after the preparation year).

	% Staff to be hired in 1 st. year	% Staff to be hired in 2 nd. year	% Staff to be hired in 3 rd. year	% Staff to be hired in 4 th. year
Percentage of full number	50%	25%	25%	
No. of Employees	85	128	170	170
Monthly salaries LE	226,563	339,844	453,125	453,125

1.1.3 University administration:

Table 7 shows the university administration staff salaries and benefits.

Table7: The university administration staff salaries and benefits

Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
President	1	30,000	7,500	37,500	37,500
Associate President	3	25,000	6,250	31,250	93,750
Dean	2	20,000	5,000	25,000	50,000
Secretary General	1	15,000	3,750	18,750	18,750
Secretarial and administration	10	1,500	375	1875	18750
Accounting and Personnel	5	2,500	625	3,125	15,625
<b>Total</b>					<b>234,375</b>

Table 8 shows the development of the total salaries of the academic, Non-academic and university administration staff over the first four years (after the preparation year).

**Table 8: The development of the academic, Non-academic and administrative staff over the first four years (after the preparation year).**

	Monthly Salaries 1st. year	Monthly Salaries 2nd. year	Monthly Salaries 3rd. year	Monthly Salaries 4th. year
Academic	226,563	339,844	453,125	453,125
Non Academic	300,938	552,188	803,438	1,005,000
Administration	234,375	234,375	234,375	234,375
<b>Total salaries</b>	<b>761,875</b>	<b>1,126,406</b>	<b>1,490,938</b>	<b>1,692,500</b>

Figure 3 illustrates the development of the total salaries of the academic, Non-academic and university administration staff over the first four years (after the preparation year).

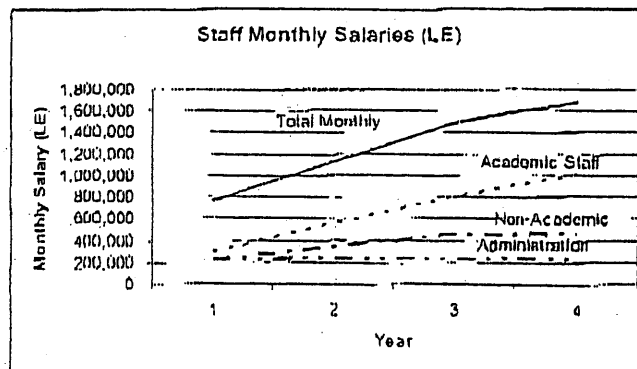


Figure 3: the development of the total salaries of the academic, non-academic, and university administration staff over the first four years (after the preparation year).

### 1.2 Consumables (lab material, spare parts...) and stationary

Table 9 shows estimated annual expenses of the consumables and stationary for the first four years (after the preparation year) (estimated in proportion to the number of students enrolled in each college and the needs in the two main colleges).

Table 9: Estimated annual expenses of the consumable and stationary for the first four years (after the preparation year)

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Engineering undergraduate	120,000	280,000	480,000	680,000
Engineering Master	30,000	66,000	78,000	84,000
Engineering Ph.D.			30,000	30,000
Business undergraduate	90,000	206,000	354,000	514,000
Business Master	12,000	24,000	30,000	30,000
Business Ph.D.			12,000	12,000
Total	252,000	510,000	984,000	1,350,000

### 1.3 Building maintenance

Table 10 shows a rough estimate for the building maintenance expenses over the first four years (after the preparation year).

Table 10: A rough estimate for the building maintenance over the first four years (after the preparation year).

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Buildings maintenance	2,000,000	3,000,000	4,000,000	5,000,000

### 1.4 Lab equipment maintenance

Table 11 shows a rough estimate for the labs maintenance over the first four years (after the preparation year).

Table 11: A rough estimate for the lab maintenance over the first four years (after the preparation year).

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
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Lab maintenance	6,000,000	7,000,000	8,000,000	9,000,000
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### 1.5 Building depreciation annual payment

Table 12 shows a rough estimate for the building depreciation annual payment over the first four years (after the preparation year).

**Table 12: A rough estimate for the building maintenance over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Buildings maintenance	2,000,000	3,000,000	4,000,000	5,000,000

### 1.6 Lab equipment depreciation annual payment

Table 13 shows a rough estimate for the labs depreciation annual payment over the first four years (after the preparation year).

**Table 13: A rough estimate for the lab depreciation annual payment over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Lab maintenance	6,000,000	7,000,000	8,000,000	9,000,000

### 1.7 Landscape maintenance

Table 14 shows a rough estimate for the vast landscape (about 500,000 mt2) maintenance expenses over the first four years (after the preparation year).

**Table 14: A rough estimate for the landscape maintenance over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Lab maintenance	2,000,000	2,000,000	2,000,000	2,000,000

### 1.8 Utilities and communication.

Table 15 shows estimated annual expenses for the utilities and communication over the first four years (after the preparation year).

**Table 15: Estimated annual expenses of the utilities and communication for the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year

Lab maintenance	2,000,000	3,000,000	4,000,000	5,000,000
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### 1.9 Student services

Table 16 shows estimated annual expenses for the student services over the first four years (after the preparation year).

**Table 16: Estimated annual expenses for the student services over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Student services	500,000	1,000,000	2,000,000	4,000,000

### 1.10 Staff and employees services

Table 17 shows estimated annual expenses for the staff services and employees over the first four years (after the preparation year).

**Table 17: Estimated annual expenses for the staff and employees services over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Student services	100,000	200,000	300,000	400,000

### 1.11 Miscellaneous and contingencies

10% of total expenses and expenses.

Table 18 shows a summary of the operating (running) expenses over the first four years (after the preparation year).

**Table 18: Summary of operating (running) expenses for the first four years (after the preparation year)**

No	Item	1 st. year	2 nd. Year	3 dr. year	4 th. Year
1-1	Salaries (annual)	9,142,500	13,516,875	17,891,250	20,310,000
1-2	Consumables and stationary	252,000	510,000	984,000	1,350,000
1-3	Building maintenance	2,000,000	3,000,000	4,000,000	5,000,000
1-4	Lab equipment maintenance	6,000,000	7,000,000	8,000,000	9,000,000
1-6	Buildings depreciation annual payment	2,000,000	3,000,000	4,000,000	5,000,000



No	Item	1 st. year	2 nd. Year	3 dr. year	4 th. Year
1-7	Lab equipment depreciation annual payment	6,000,000	7,000,000	8,000,000	9,000,000
1-5	Landscape maintenance	2,000,000	2,000,000	2,000,000	2,000,000
1-9	Utilities and communication	2,000,000	3,000,000	4,000,000	5,000,000
1-10	Student services	500,000	1,000,000	2,000,000	4,000,000
1-11	Staff and employees services	100,000	200,000	300,000	400,000
1-12	Miscellaneous and contingencies	2,999,450	4,022,687	5,117,525	6,106,000
Total		32,993,950	44,249,563	56,292,775	67,166,000

## 2. Investment expenses:

2.1 Pre-operating expenses (consultations, curricula building, experts, travel ...), to be paid upfront. Roughly It can be up LE5,000,000.0. The pre investment expenses will be spent prior to the first year

### 2.2 Libraries.

Table 19 shows estimated investments and expenses in the libraries over the first four years (after the preparation year).

Table 19: Estimated annual investments and expenses in the libraries over the first four years (after the preparation year).

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Libraries	1,000,000	2,000,000	2,000,000	2,000,000

### 2.3 Educational IT network (soft and hardware)

Table 20 shows estimated annual investments and expenses in the Educational IT network over the first four years (after the preparation year).

Table 20: Estimated annual Investments and expenses in the Educational IT network over the first four years (after the preparation year).

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Educational IT network	3,000,000	1,000,000	1,000,000	1,000,000

### 2.4 Management Information system IT network (soft and hardware)

Table 21 shows estimated annual investments and expenses in Management Information system IT network over the first four years (after the preparation year).

**Table 21: Estimated annual investments and expenses in the Educational IT network over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Management Information Systems IT network	3,000,000	1,000,000	1,000,000	1,000,000

### 2.5 Additional research labs equipment

Table 22 shows estimated annual investments in additional lab equipment over the first four years (after the preparation year).

**Table 22: Estimated annual investments and expenses in the Educational IT network over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Additional lab equipment	30,000,000	30,000,000	30,000,000	30,000,000

### 2.6 Transportation vehicles

Table 23 shows estimated annual investments in transportation vehicles over the first four years (after the preparation year).

**Table 23: Estimated annual investments and expenses in transportation vehicles over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Transportation vehicles	1,000,000	500,000	500,000	500,000

### 2.7 Miscellaneous and contingences 10%.

Table 24 shows miscellaneous and contingences 10% expenses over the first four years (after the preparation year).

**Table 24: Estimated Miscellaneous and contingences 10% over the first four years (after the preparation year).**

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Miscellaneous and contingences 10%	900,000	550,000	550,000	550,000

Table 25 shows a summary of the investment expenses over the first four years (after the preparation year).

**Table 25: Summary of investment expenses over the first four years (after the preparation year)**

Item	Preparation Year			
Pre-operating expenses	5,000,000			

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Libraries	1,000,000	2,000,000	2,000,000	2,000,000
Educational IT network	3,000,000	1,000,000	1,000,000	1,000,000
Management Information Systems IT network	3,000,000	1,000,000	1,000,000	1,000,000
Additional lab equipment	30,000,000	30,000,000	30,000,000	30,000,000
Transportation vehicles	1,000,000	500,000	500,000	500,000
Miscellaneous and contingences 10%.	3,800,000	3,450,000	3,450,000	3,450,000
<b>Total</b>	<b>41,800,000</b>	<b>37,950,000</b>	<b>37,950,000</b>	<b>37,950,000</b>

Table 26: Summary of the needed budget over the first five years (including the preparation year)

Item	Preparation Year	1 st. year	2 nd. year	3 rd. year	4 th. year
Running expenses		32,993,950	44,249,563	56,292,775	67,166,000
Investments	5,000,000	41,800,000	37,950,000	37,950,000	37,950,000
<b>Total</b>	<b>5,000,000</b>	<b>74,793,950</b>	<b>82,199,563</b>	<b>94,242,775</b>	<b>105,116,000</b>

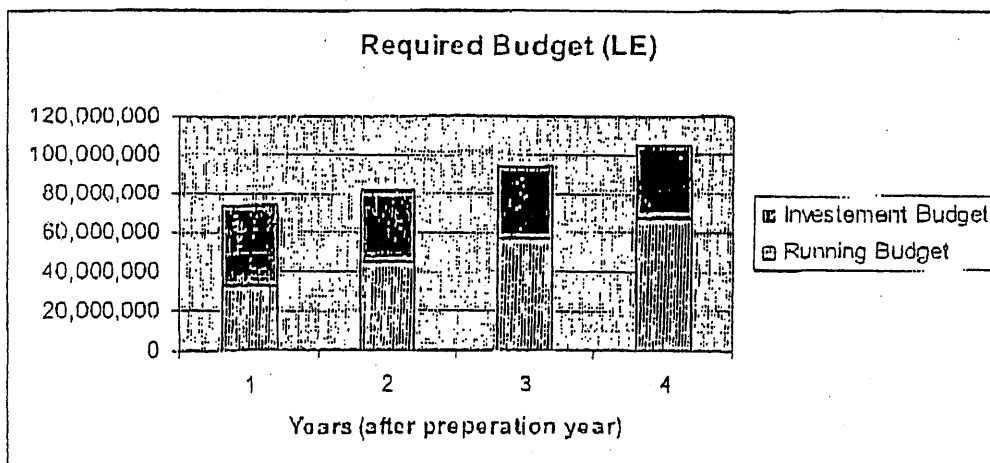


Figure 4 : Summary of the needed budget over the first four years (after the preparation year)

### 3. Concluding Remarks

All the above estimates are budget estimates, though they are based on personal wide experience they need to be reassessed carefully, the error in these estimates is within the error permissible in pre-feasibility studies.

The above estimates are based on:

- 1- Though the study in the two colleges (Engineering and Business) is recommended to start at the beginning of the first year, not all the programs to be offered,
- 2- Enrollment for post-graduate on the master level can begin as from the first year, but Ph.D. enrollment in many programs is not feasible before the third year,
- 3- The number of undergraduate enrollments suggested in this report, in general term, is acceptable. However the number of postgraduate enrollments is rather optimistic,
- 4- The budget needed for the preparation year is LE5 Millions, for the first year LE74 Millions, and is expected to be LE105 Millions in the fourth year (after the preparation year),
- 5- The budget after the fourth year (full operation) will not vary drastically unless new activities or concepts are adopted.

# **E-Just Pre-feasibility Assessment Report – V3**

**Version 3**

**12 Nov. 2005**

*M. Hamdy Elwany*

*Professor*

V3

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## Introduction to E-Just pre-feasibility V3:

In reference to the meeting held on 25 Oct 2005, the following remarks have noticed in this version:

- a- The preparation of a pre-feasibility study in case if the concerned authorities do not donate the buildings and the lab facilities in the proposed site.
- b- The in and out cash flows, on the basis that the students shall pay reasonable fees.
- c- The sources of income are: students' fees, research and consultation activities, continuous education and training programs, civil society donations, and the Egyptian and Japanese government financial and in-kind support.

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1- Enrollments projection for the first ten years  
 1-1- Undergraduate Enrollment Projections in Engineering

Faculty of Engineering	Preparation Year	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
Department of Electrical ,Electronic & Computer Engineering										
Control & Systems		0	50	100	150	200	225	250	275	300
Computer & Communication		50	100	150	200	225	250	275	300	300
Electronic Device		0	0	0	50	100	150	200	225	250
Department of Mechanical & Manufacturing Engineering										
Industrial & Management System		50	100	150	200	225	250	275	300	300
Precision		0	0	0	50	100	150	200	225	250
Mechatronics & Robotics		50	100	150	200	225	250	275	300	300
Department of Material and Chemical Engineering										
Chemical & Petrochemical		50	100	150	200	225	250	275	300	300
Nano- Science & Nano-Engineering		0	0	0	50	100	150	200	225	250
Resources & Environmental		0	50	100	150	200	250	275	300	300
<b>Total Engineering</b>		<b>200</b>	<b>500</b>	<b>800</b>	<b>1250</b>	<b>1600</b>	<b>1925</b>	<b>2225</b>	<b>2450</b>	<b>2550</b>

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1-2- Undergraduate Enrollment Projections in Business

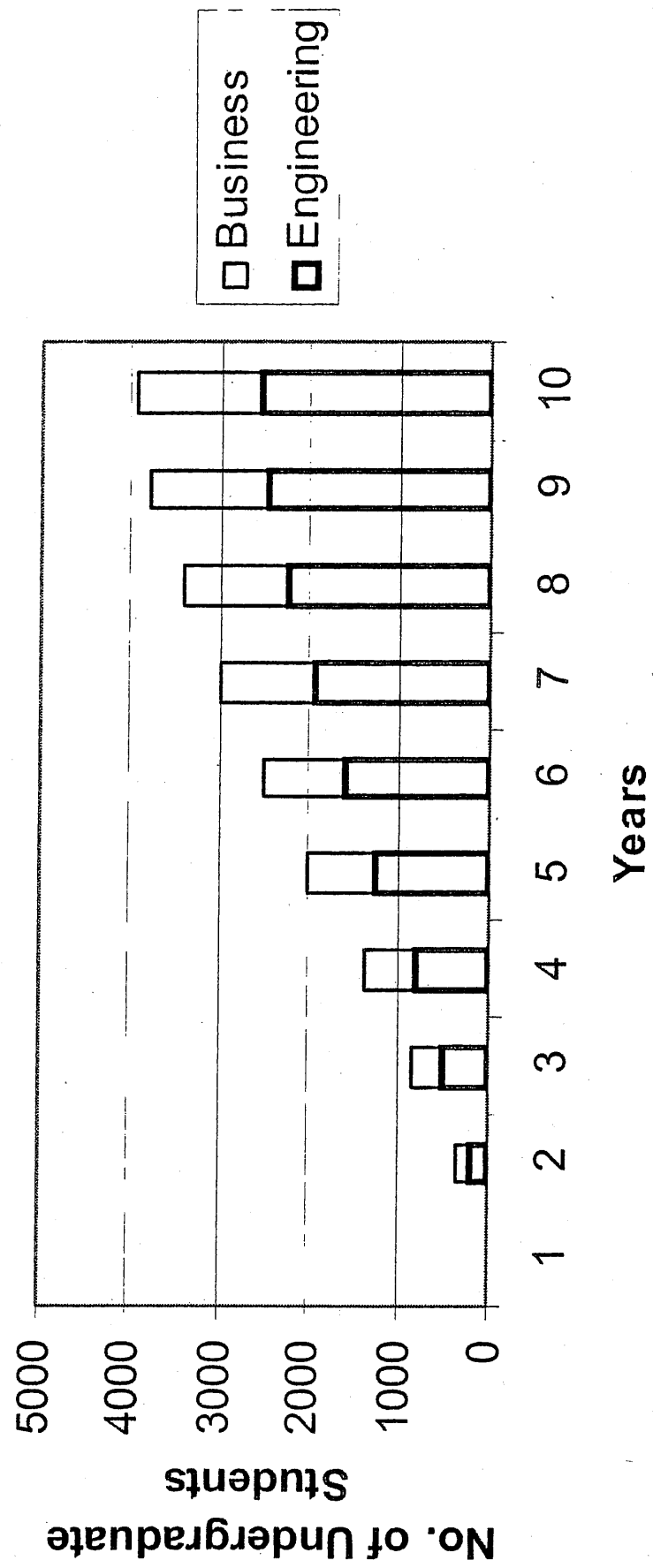
Faculty of Business	Preparation Year	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
Department of international business & Humanities										
International Business Management		50	100	150	200	225	250	275	300	300
Cross-Cultural Management		25	50	75	100	125	150	175	200	200
Management of Technology		25	50	75	100	125	150	175	200	200
Department of Egyptology & Japonology										
Egyptology		0	25	50	75	100	125	150	175	200
Japonology		0	25	50	75	100	125	150	175	200
Tourism studies		50	100	150	200	225	250	275	300	300
<b>Total Business</b>		<b>150</b>	<b>350</b>	<b>550</b>	<b>750</b>	<b>900</b>	<b>1050</b>	<b>1200</b>	<b>1350</b>	<b>1400</b>

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# Undergraduate Enrollments Projection



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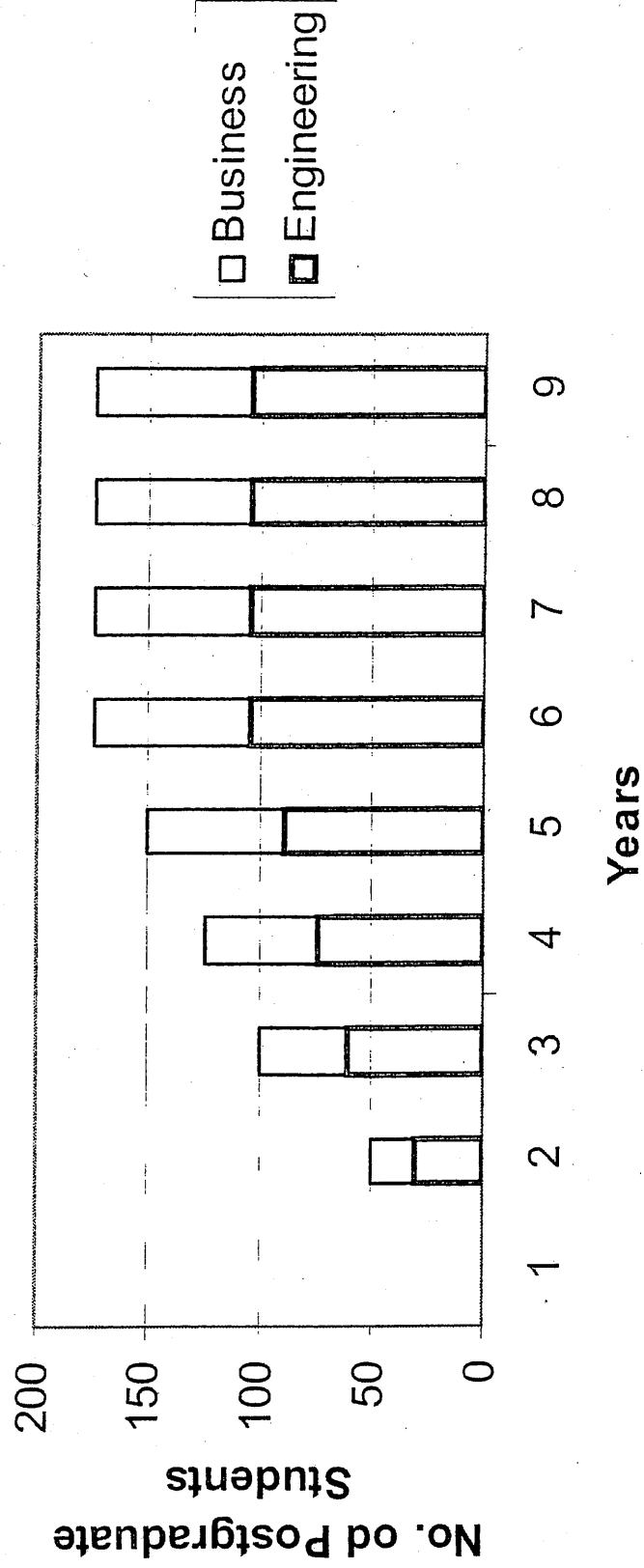
1-3- Postgraduate Enrollment Projections in Engineering

Engineering	preparation	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
Control & Systems	Msc		10	20	20	20	20	20	20	20
Computer & Communication Electronic Device	PhD		0	0	5	10	15	15	15	15
Industrial & Management System	Msc		10	20	20	20	20	20	20	20
Precision Mechatronics & Robotics	PhD		0	0	5	10	15	15	15	15
Chemical & Petrochemical	Msc		10	20	20	20	20	20	20	20
Nano- Engineering Resources & Environmental	PhD		0	0	5	10	15	15	15	15
<b>Total Engineering</b>		<b>0</b>	<b>30</b>	<b>60</b>	<b>75</b>	<b>90</b>	<b>105</b>	<b>105</b>	<b>105</b>	<b>105</b>

1-4- Postgraduate Enrollment Projections in Business

Business	preparation	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year
International Management	Business		10	20	20	20	20	20	20	20
	Msc									
Cross-Cultural Management	Business		0	0	5	10	15	15	15	15
	PhD									
Management of Technology										
Egyptology	Msc		10	20	20	20	20	20	20	20
Japanology	PhD		0	0	5	10	15	15	15	15
Tourism studies										
<b>Total Business</b>		<b>0</b>	<b>20</b>	<b>40</b>	<b>50</b>	<b>60</b>	<b>70</b>	<b>70</b>	<b>70</b>	<b>70</b>

## Postgraduate Enrollment Projections



**2- University Campus basic components, features, outlines and requirements.**

The projected steady state undergraduate enrollments (9th Year) are shown in the following table:

Faculty of Engineering	Steady State projected enrollments	Faculty of Business	Steady State projected enrollments
		Department of international business & Humanities	
Department of Electrical ,Electronic & Computer Engineering		International Business Management	300
Control & Systems	300	Cross-Cultural Management	200
Computer & Communication	300	Management of Technology	200
Electronic Device	250	Department of Egyptology & Japanology	
Department of Mechanical & Manufacturing Engineering		Egyptology	200
Industrial & Management System	300	Japanology	200
Precision	250	Tourism studies	300
Mechatronics & Robotics	300	<b>Total Business</b>	<b>1400</b>
Department of Material and Chemical Engineering			
Chemical & Petrochemical	300		
Nano- Science & Nano-Engineering	250		
Resources & Environmental	300		
<b>Total Engineering</b>	<b>2550</b>		

The projected steady state postgraduate enrollments (9th Year) are shown in the following table:

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<b>Engineering</b>		<b>Steady State projected enrollments</b>
Control & Systems	Msc	20
Computer & Communication	PhD	15
Electronic Device		
Industrial & Management System	Msc	20
Precision	PhD	15
Mechatronics & Robotics		
Chemical & Petrochemical	Msc	20
Nano- Science & Nano-Engineering	PhD	15
Resources & Environmental		
<b>Total Engineering</b>		<b>105</b>

<b>Business</b>		<b>Steady State projected enrollments</b>
International Business Management	Msc	20
Cross-Cultural Management	PhD	15
Management of Technology		
Egyptology	Msc	20
Japanology	PhD	15
Tourism studies		
<b>Total Business</b>		<b>70</b>

**2-1- Campus main components:**

1	Lecture theaters
2	Class rooms

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3	Seminar rooms
4	Meeting rooms
5	Academic staff rooms
6	Non-academic staff and secretarial rooms
7	Auditorium
8	Undergraduate labs
9	Research labs
10	Workshop
11	Libraries
12	Mosque - Chaplaincy
13	Student union complex
14	Gymnasium and play grounds
15	Clinics
16	Restaurants and cafeterias
17	Students dorms
18	Staff accommodations
19	Utilities complex
20	Miscellaneous

**2-2- Faculty of Engineering:**

**2-2-1 Undergraduate lecture theaters, class rooms, etc.:**

Faculty of Engineering	Steady State projected enrollments	Lecture theater	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
Department of Electrical ,Electronic & Computer Engineering								
Control & Systems	300	2	4	4	1	10	2	
Computer & Communication	300	2	4	4	1	10	2	
Electronic Device	250	2	3	3	1	8	2	

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Faculty of Engineering	Steady State projected enrollments	Lecture theater	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
Department of Mechanical & Manufacturing Engineering								
Industrial & Management System	300	2	4	4	1	10	2	
Precision	250	2	3	3	1	8	2	
Mechatronics & Robotics	300	2	4	4	1	10	2	
Department of Material and Chemical Engineering								
Chemical & Petrochemical	300	2	4	4	1	10	2	
Nano- Science & Nano- Engineering	250	2	3	3	1	8	2	
Resources & Environmental	300	2	4	4	1	10	2	
<b>Total Engineering</b>	<b>2550</b>	<b>18</b>	<b>33</b>	<b>33</b>	<b>9</b>	<b>84</b>	<b>18</b>	<b>1</b>
<b>Are per unit (mt2)</b>		<b>150</b>	<b>80</b>	<b>40</b>	<b>30</b>	<b>10</b>	<b>15</b>	<b>400</b>
<b>Total area</b>		<b>2700</b>	<b>2640</b>	<b>1320</b>	<b>270</b>	<b>840</b>	<b>270</b>	<b>400</b>

### 2-2-2 Undergraduate labs, workshops, libraries, etc.:

Faculty of Engineering	Steady State projected enrollments	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
Department of Electrical ,Electronic & Computer Engineering								
Control & Systems	300	3						
Computer & Communication	300	3						
Electronic Device	250	3		1				1
Department of Mechanical & Manufacturing Engineering								
Industrial & Management System	300	3						
Precision	250	3						

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Faculty of Engineering	Steady State projected enrollments	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
Mechatronics & Robotics	300	3		1				1
Department of Material and Chemical Engineering								
Chemical & Petrochemical	300	3						
Nano- Science & Nano- Engineering	250	3						
Resources & Environmental	300	3		1				1
<b>Total Engineering</b>	<b>2550</b>	<b>27</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>
<b>Are per unit (mt2)</b>		<b>160</b>	<b>400</b>	<b>150</b>	<b>500</b>	<b>150</b>	<b>300</b>	<b>100</b>
<b>Total area</b>		<b>4320</b>	<b>400</b>	<b>450</b>	<b>500</b>	<b>150</b>	<b>300</b>	<b>100</b>

### 2-2-3 Postgraduate seminar rooms, offices, research labs, etc.:

Engineering		Steady State projected enrollments	Seminar room	Offices	Research lab	Work shop	Lecture room
Control & Systems & Computer Communication	Msc	20					
	PhD	15					
	Electronic Device		3	10	6	1	1
Industrial & Management System  Precision Mechatronics & Robotics	Msc	20					
	PhD	15					
			3	10	6	1	1
Chemical & Petrochemical Nano- Science & Nano-Engineering	Msc	20					
	PhD	15					

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		Steady State projected enrollments	Seminar room	Offices	Research lab	Work shop	Lecture room
Engineering							
Resources & Environmental			3	10	6	1	1
<b>Total Engineering</b>		<b>105</b>	<b>9</b>	<b>30</b>	<b>18</b>	<b>3</b>	<b>3</b>
Are per unit (mt2)			40	10	100	100	100
Total area			360	300	1800	300	300

**2-2-4 Total area under and postgraduate Engineering:**

Item	Area (mt2)	Steady State projected enrollments	Average (mt2) per capita
Undergraduate	14,660	2,550	5.7
Postgraduate	3,060	105	29.0
<b>Total</b>	<b>17,720</b>		

**2-3- Faculty of Business:**

**2-3-1 Undergraduate Lecture Theater, class rooms, seminar rooms, etc.:**

Faculty of Business	Steady State projected enrollments	Lecture theater	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
Department of international business & Humanities								
International Business Management	300	2	4	4	1	10	2	
Cross-Cultural Management	200	2	3	3	1	8	2	
Management of Technology	200	2	3	3	1	8	2	

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Faculty of Business	Steady State projected enrollments	Lecture theater	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
Department of Egyptology & Japanology								
Egyptology	200	2	3	3	1	8	2	
Japanology	200	2	3	3	1	8	2	
Tourism studies	300	2	4	4	1	10	2	
<b>Total Business</b>	<b>1400</b>	<b>12</b>	<b>20</b>	<b>20</b>	<b>6</b>	<b>42</b>	<b>12</b>	<b>1</b>
<b>Are per unit (mt2)</b>		<b>150</b>	<b>80</b>	<b>40</b>	<b>30</b>	<b>10</b>	<b>15</b>	<b>400</b>
<b>Total area</b>		<b>1800</b>	<b>1600</b>	<b>800</b>	<b>180</b>	<b>420</b>	<b>180</b>	<b>400</b>

### 2-3-2 Undergraduate labs, workshops, local libraries, etc.:

Faculty Engineering	of	Steady State projected enrollments	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
Department of international business & Humanities									
International Business Management		300			1				
Cross-Cultural Management		200			1				
Management Technology	of	200	1		1				1
Department of Egyptology & Japanology									
Egyptology		200	1		1				
Japanology		200			1				
Tourism studies		300			1				1
<b>Total Business</b>		<b>1400</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>Are per unit (mt2)</b>			<b>160</b>	<b>400</b>	<b>150</b>	<b>500</b>	<b>150</b>	<b>300</b>	<b>100</b>
<b>Total area</b>			<b>320</b>	<b>0</b>	<b>900</b>	<b>500</b>	<b>150</b>	<b>300</b>	<b>200</b>

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2-3-3 Postgraduate seminar rooms, offices, research labs, etc.:

		Steady State projected enrollments	Seminar room	Offices	Research lab	Work shop	Lecture room
<b>Business</b>							
International Business Management	Msc	20	3	10	2	0	3
Cross-Cultural Management	PhD	15					
International Business Management							
Management of Technology	Msc	20	3	10	2	0	3
Egyptology	PhD	15					
Japanology							
Tourism studies							
<b>Total Business</b>		<b>70</b>	<b>6</b>	<b>20</b>	<b>4</b>	<b>0</b>	<b>6</b>
<b>Are per unit (mt2)</b>			<b>40</b>	<b>10</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Total area</b>			<b>240</b>	<b>200</b>	<b>400</b>	<b>0</b>	<b>600</b>

2-3-4 Total area under and postgraduate Business:

Item	Area (mt2)	Steady State projected enrollments	Average (mt2) per capita
Undergraduate	5,380	1,400	3.8
Postgraduate	1,440	70	20.5
<b>Total</b>	<b>6,820</b>		

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**2-4- Total area Engineering, Business, and auxiliaries:**

**2-4-1 Main campus components:**

No	Item	Area (mt2)
1	Engineering undergraduate	14,660
2	Engineering postgraduate	3,060
3	Business undergraduate	5,380
4	Business postgraduate	1,440
5	Central Library	1,000
6	Mosque – Chaplaincy	5,00
7	Student union complex	1,000
8	Gymnasium	1,000
9	Clinics	300
10	Restaurant	500
11	Utilities and services complex	500
12	Miscellaneous	500
<b>Total</b>		<b>29,340</b>

**2-4-2 Additional campus components:**

No	Item	Area (mt2)
1	Play ground	4,000
2	Student dorms to accommodate 500	10,000
3	Staff accommodation to accommodate 50	10,000

**2-5- Land required:**

No	Item	Land require (mt2)	Remarks
1	Main campus components	$29,340/3 = 9,780$	Three floors building
2	Play ground	4,000	
3	Students dorms	$10,000/5 = 2,000$	Five floors building

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No	Item	Land require (mt2)	Remarks
4	Staff accommodation	10,000/5 = 2,000	Five floors building
5	Landscape	10,000	
<b>Total</b>		<b>27,780</b>	

### 2-6- Buildings cost:

The following estimates do not include students' dorms and staff accommodation, which can be built in a later stage to minimize the capital investments at the early stage.

No	Item	Cost LE
1	29,340 mt2 for main campus components x LE3000 including mechanical, ventilation, and limited air condition.	88,020,000
2	Playground and landscape	3,000,000
<b>Total</b>		<b>91,020,000</b>

Engineering and business undergraduate lecture theaters, class rooms, seminar rooms meeting rooms, staff rooms' cost, and administrative rooms' furniture:

	Lecture theater	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
Engineering	18	33	33	9	84	18	1
Business	12	20	20	6	42	12	1
<b>Total</b>	<b>30</b>	<b>53</b>	<b>53</b>	<b>15</b>	<b>126</b>	<b>30</b>	<b>2</b>
<b>Cost (LE) per unit</b>	<b>20,000</b>	<b>8,000</b>	<b>4,000</b>	<b>4,000</b>	<b>3,000</b>	<b>2,000</b>	<b>400,000</b>
<b>Total</b>	<b>600,000</b>	<b>424,000</b>	<b>212,000</b>	<b>60,000</b>	<b>378,000</b>	<b>60,000</b>	<b>800,000</b>
<b>Grand total</b>							<b>2,534,000</b>

Engineering and business undergraduate labs, workshops, local libraries, central libraries, IT centers furniture, utilities, and cafeterias furniture and equipment:

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	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
Engineering	27	1	3	1	1	1	3
Business	2	0	6	1	1	1	2
<b>Total</b>	<b>29</b>	<b>1</b>	<b>9</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>5</b>
<b>Cost (LE) per unit</b>	<b>300,000</b>	<b>300,000</b>	<b>200,000</b>	<b>500,000</b>	<b>50,000</b>	<b>0</b>	<b>50,000</b>
<b>Total</b>	<b>8,700,000</b>	<b>300,000</b>	<b>1,800,000</b>	<b>1,000</b>	<b>100,000</b>	<b>0</b>	<b>250,000</b>
<b>Grand total</b>							<b>11,151,000</b>

Engineering and business postgraduate lecture theaters, class rooms, seminar rooms meeting rooms, staff rooms' cost, and administrative rooms' furniture:

	Lecture room	Work shop	Research lab	Offices	Seminar room
Engineering	3	3	18	30	9
Business	6	0	4	20	6
<b>Total</b>	<b>9</b>	<b>3</b>	<b>22</b>	<b>50</b>	<b>15</b>
<b>Cost (LE) per unit</b>	<b>20,000</b>	<b>50,000</b>	<b>100,000</b>	<b>3,000</b>	<b>4,000</b>
<b>Total</b>	<b>180,000</b>	<b>150,000</b>	<b>2,200,000</b>	<b>150,000</b>	<b>60,000</b>
<b>Grand total</b>					<b>2,740,000</b>

**2-6-1 Total for items 2-5, 2-6, 2-7 and 2-8:**

No	Item	Cost
1	Item 2-5	91,020,000
2	Item 2-6	2,534,000

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No	Item	Cost
3	Item 2-7	11,151,000
4	Item 2-8	2,740,000
<b>Total</b>		<b>107,445,000</b>

**2-6-2 Total investment:**

No	Item	Cost
1	Item 2-9	107,445,000
2	28,000 mt2 land x LE200	5,600,000
3	Mechanical installations: elevators, air condition, ventilation, pumps, etc. (@5% from item 2-9)	5,000,000
4	Electrical installations: cables, wiring, lighting, protection, etc. (@5% from item 2-9)	5,000,000
5	Landscape, playgrounds, and roads. (@5% from item 2-9)	5,000,000
6	Miscellaneous. (@5% from item 2-9)	5,000,000
<b>Total</b>		<b>133,045,000</b>

**3- The estimated budget for the first four years (after the preparation year):**

The preliminary budget for the first 4 years includes the following main items.

**3-1- Operating (running) expenses:**

- a- Wages and salaries (including fringe benefits).
- b- Non-Egyptian academic staff compensation.
- c- Consumables (lab material, spare parts...) and Stationary
- d- Building maintenance
- e- Lab equipment maintenance
- f- Building depreciation
- g- Lab equipment depreciation
- h- Landscape maintenance
- i- Utilities and communication.

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- j- Student services
- k- Staff and employees services
- l- Miscellaneous and contingencies.
- m- Non-Egyptian staff compensations.

**3-2- Investment expenses**

- a- Pre-operating expenses (consultations, curricula building, experts, travel ...)
- b- Libraries (book, periodicals and electronic)
- c- Educational IT network (soft and hardware)
- d- Management Information System MIS network MIS (soft and hardware)
- e- Additional research lab equipment (as required)
- f- Transportation vehicles
- g- Miscellaneous

**4- Operating (running) expenses:**

**4-1- Wages and salaries (including fringe benefits).**

**4-1-1 Academic Staff:**

Table 1 shows the number and salaries (including benefits) of the academic staff at full operation (fourth year) of university.

*Table 1: Number and salaries of the academic staff at full operation of the university.*

	Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
Engineering	Professors	9	15,000	3,750	18,750	168,750
	Associate Professor	9	10,000	2,500	12,500	112,500
	Assistant Professors	18	6,000	1,500	7,500	135,000
	Teaching Assistants	18	3,000	750	3,750	67,500
Business and Humanities	Professors	6	15,000	3,750	18,750	112,500
	Associate Professor	6	10,000	2,500	12,500	75,000
	Assistant Professors	12	6,000	1,500	7,500	90,000

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	Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
	Teaching Assistants	12	3,000	750	3,750	45,000
Basic Sciences	Professors	3	15,000	3,750	18,750	56,250
	Associate Professor	6	10,000	2,500	12,500	75,000
	Assistant Professors	6	6,000	1,500	7,500	45,000
	Teaching Assistants	6	3,000	750	3,750	22,500
<b>Total</b>						<b>1,005,000</b>

Table 2 shows the percentage of the academic staff to be hired during the first four years (after the preparation year) (until reaching full operation)

*Table 2: Percentage of academic staff to be hired during the first four years (after the preparation year).*

	% Staff to be appointed in 1 st. year	% Staff to be appointed in 2 nd. year	% Staff to be appointed in 3 rd. year	% Staff to be appointed in 4 th. year
Engineering	25%	25%	25%	25%
Business and Humanities	25%	25%	25%	25%
Basic Sciences	50%	25%	25%	

Table 3 shows the academic staff projections for the first four years (after the preparation year).

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Table 3: Academic staff projections.

	Total No. of Academic Staff in the 1 st. Year	Total No. of Academic Staff in the 2 nd. Year	Total No. of Academic Staff in the 3 rd. Year	Total No. of Academic Staff in the 4 th. Year
Engineering	14	28	42	54
Business and Humanities	12	24	36	48
Basic Sciences	10	15	21	
<b>TOTAL</b>	<b>36</b>	<b>67</b>	<b>99</b>	<b>102</b>

Figure 1 shows the academic staff projections for the first four years (after the preparation year).

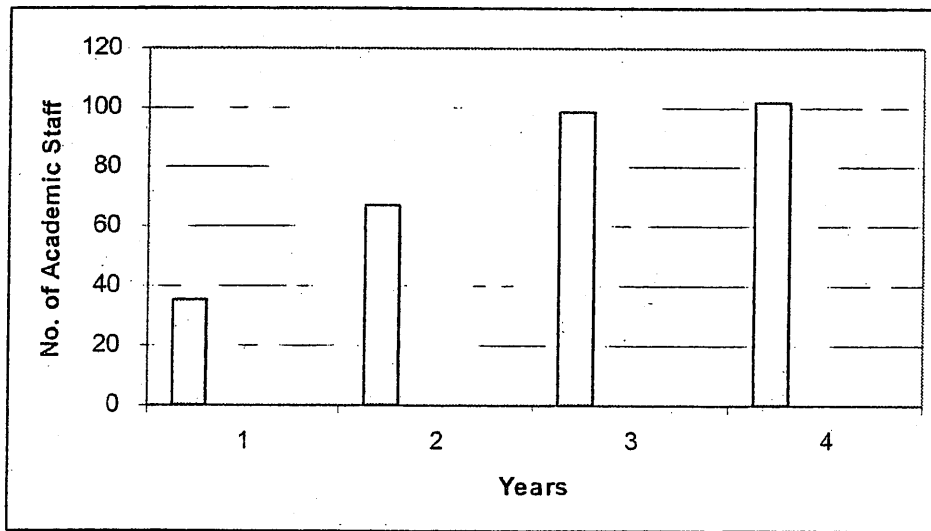


Figure 1: academic staff projections

Table 4 shows the development of the academic staff salaries and benefits over the first four years (after the preparation year):

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Table 4: The development of the academic staff projected monthly salaries and benefits.

	1 st. year	2 nd. year	3 rd. year	4 th. year
Engineering	120,938	241,875	362,813	483,750
Business and Humanities	80,625	161,250	241,875	322,500
Basic Sciences	99,375	149,063	198,750	198,750
<b>TOTAL</b>	<b>300,938</b>	<b>552,188</b>	<b>803,438</b>	<b>1,005,000</b>

Figure 2 shows the development of the academic staff salaries and benefits over the first four years (after the preparation year).

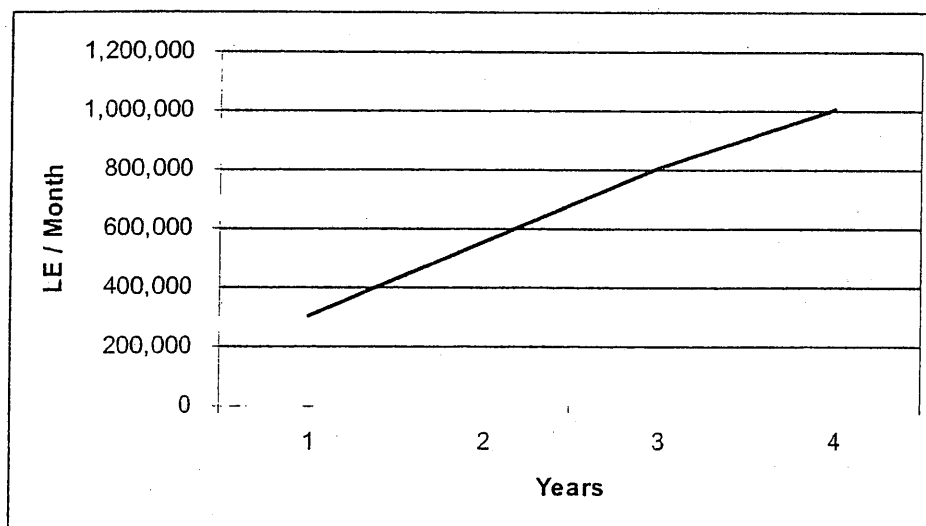


Figure 2: Development of academic staff salaries and benefits over the first four years (after the preparation year).

#### 4-1-2 Non-Egyptian academic staff compensation

Table 4-a shows the projections of the Egyptian and non-Egyptian academic staff. The non-Egyptian academic staff is about 25% of the total academic staff.

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Table 4-a: Egyptian / Non-Egyptian Academic staff projections.

	Total No. of Academic Staff in the 1 st. Year		Total No. of Academic Staff in the 2 nd. Year		Total No. of Academic Staff in the 3 rd. Year		Total No. of Academic Staff in the 4 th. Year	
	Egyptian	Non Egyptians	Egyptian	Non Egyptians	Egyptian	Non Egyptians	Egyptian	Non Egyptians
Engineering	10	4	20	8	30	12	40	14
Business and Humanities	10	2	20	4	30	6	40	8
Basic Sciences	10	0	13	2	21	3	21	3
<b>TOTAL Egyptians</b>	<b>30</b>		<b>53</b>		<b>81</b>		<b>101</b>	
<b>Total Non-Egyptian</b>		<b>6</b>		<b>14</b>		<b>21</b>		<b>25</b>

In addition to the salary paid for Egyptian professors, Non-Egyptian professors Compensation (covering one air ticket per year for three members of the family, apartment rent, transportation, gratitude ... etc. LE25, 000 per month = LE300.000 annually)

#### 4-1-3 Non-Academic Staff:

Table 5 shows the estimate numbers and salaries of non academic staff at full operation.

Table 5: Number and projected monthly salaries of the non-academic staff at full operation of the university

	Item	No.	Salary (LE/month)		Salary + Benefits and allowances (LE/month)	Total
Engineering	Administrative and Secretarial	30	1,000	250	1,250	37,500
	Lab Technicians	60	2,000	500	2,500	150,000
M. Hamdy Elwany Professor	Workshop	20	2,000	500	2,500	50,000

	Item	No.	Salary (LE/month)		Salary + Benefits and allowances (LE/month)	Total
	technicians					
	Maintenance staff	30	2,000	500	2,500	75,000
	Helpers	30	750	188	938	28,125
Business and Humanities	Administrative and Secretarial	35	1,000	250	1,250	43,750
	Maintenance staff	20	2,000	500	2,500	50,000
	Helpers	20	750	188	938	18,750
<b>Total</b>						<b>453,125</b>

Table 6 shows the percentage of the non-academic staff to be hired in the first four years (after the preparation year) (until reaching full operation)

*Table 6: Percentage of academic staff to be hired during the first four years (after the preparation year).*

	% Staff to be hired in 1 st. year	% Staff to be hired in 2 nd. year	% Staff to be hired in 3 rd. year	% Staff to be hired in 4 th. year
Percentage of full number	50%	25%	25%	
No. of Employees	85	128	170	170
Monthly salaries LE	226,563	339,844	453,125	453,125

#### 4-1-4 University administration:

Table 7 shows the university administration staff salaries and benefits.

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Table7: The university administration staff salaries and benefits

Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
President	1	30,000	7,500	37,500	37,500
Associate President	3	25,000	6,250	31,250	93,750
Dean	2	20,000	5,000	25,000	50,000
Secretary General	1	15,000	3,750	18,750	18,750
Secretarial and administration	10	1,500	375	1875	18750
Accounting and Personnel	5	2,500	625	3,125	15,625
<b>Total</b>					<b>234,375</b>

Table 8 shows the development of the total salaries of the academic, non-academic and university administration staff over the first four years (after the preparation year).

Table 8: The development of the academic, non-academic and administrative staff projected monthly salaries over the first four years (after the preparation year).

	Monthly Salaries 1 <sup>st</sup> year	Monthly Salaries 2 <sup>nd</sup> year	Monthly Salaries 3 <sup>rd</sup> year	Monthly Salaries 4 <sup>th</sup> year
Academic	226,563	339,844	453,125	453,125
Non Academic	300,938	552,188	803,438	1,005,000
Administration	234,375	234,375	234,375	234,375
<b>Total salaries</b>	<b>761,875</b>	<b>1,126,406</b>	<b>1,490,938</b>	<b>1,692,500</b>

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Figure 3 illustrates the development of the total salaries of the academic, non-academic and university administration staff over the first four years (after the preparation year).

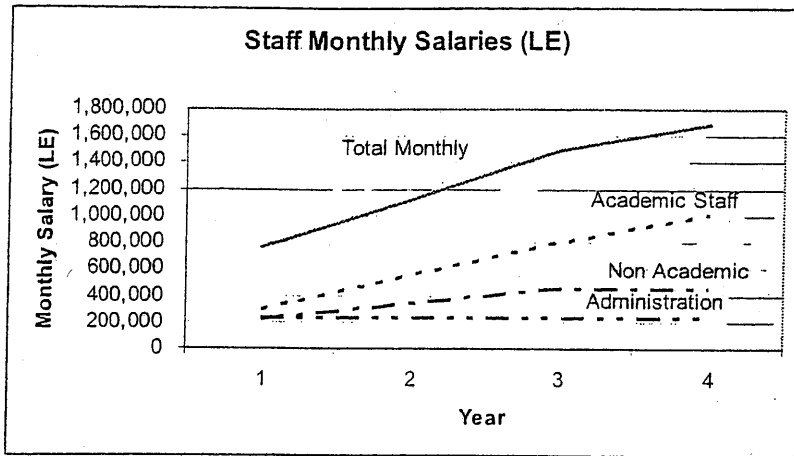


Figure 3: the development of the total projected salaries of the academic, non-academic, and university administration staff over the first four years (after the preparation year).

#### 4-2- Consumables (lab material, spare parts...) and stationary

Table 9 shows estimated annual expenses of the consumables and stationary for the first four years (after the preparation year) (estimated in proportion to the number of students enrolled in each college and the needs in the two main colleges).

Table 9: Estimated annual expenses of the consumable and stationary for the first four years (after the preparation year)

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Engineering undergraduate	120,000	280,000	480,000	680,000
Engineering Master	30,000	66,000	78,000	84,000
Engineering Ph.D.			30,000	30,000
Business undergraduate	90,000	206,000	354,000	514,000
Business Master	12,000	24,000	30,000	30,000
Business Ph.D.			12,000	12,000
<b>Total</b>	<b>252,000</b>	<b>510,000</b>	<b>984,000</b>	<b>1,350,000</b>

#### 4-3- Building maintenance

Table 10 shows a rough estimate for the building maintenance expenses (@ 2% annually) over the first four years (after the preparation year).

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*Table 10: A rough estimate for the building maintenance over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Buildings maintenance	2,000,000	2,000,000	2,000,000	2,000,000

**4-4- Lab equipment maintenance**

Table 11 shows a rough estimate for the labs maintenance (@10% annually) over the first four years (after the preparation year).

*Table 11: A rough estimate for the lab maintenance over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Lab maintenance	1,000,000	1,000,000	1,000,000	1,000,000

**4-5- Building depreciation annual payment**

Table 12 shows a rough estimate for the building depreciation annual payment (@ 2% annually) over the first four years (after the preparation year).

*Table 12: A rough estimate for the building depreciation over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Buildings Depreciation	2,000,000	2,000,000	2,000,000	2,000,000

**4-6- Lab equipment depreciation annual payment**

Table 13 shows a rough estimate for the labs depreciation (@10% annually) annual payment over the first four years (after the preparation year).

*Table 13: A rough estimate for the lab depreciation annual payment over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
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Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Lab Depreciation	1,000,000	1,000,000	1,000,000	1,000,000

#### 4-7- Landscape maintenance

Table 14 shows a rough estimate for the vast landscape (about 500,000 mt2) maintenance expenses over the first four years (after the preparation year).

*Table 14: A rough estimate for the landscape maintenance over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Lab maintenance	500,000	500,000	500,000	500,000

#### 4-8- Utilities and communication.

Table 15 shows estimated annual expenses for the utilities and communication over the first four years (after the preparation year).

*Table 15: Estimated annual expenses of the utilities and communication for the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Lab maintenance	2,000,000	3,000,000	4,000,000	5,000,000

#### 4-9- Student services

Table 16 shows estimated annual expenses for the student services over the first four years (after the preparation year).

*Table 16: Estimated annual expenses for the student services over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Student services	500,000	1,000,000	2,000,000	4,000,000

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#### 4-10- Staff and employees services

Table 17 shows estimated annual expenses for the staff services and employees over the first four years (after the preparation year).

*Table 17: Estimated annual expenses for the staff and employees services over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Student services	100,000	200,000	300,000	400,000

#### 4-11- Miscellaneous and contingencies

10% of total expenses and expenses.

Table 18 shows a summary of the operating (running) expenses over the first four years (after the preparation year).

#### 4-12- Non Egyptian Professors compensation:

See appendix 1

*Table 18: Summary of operating (running) expenses for the first four years (after the preparation year)*

No	Item	1 st. year	2 nd. Year	3 dr. year	4 th. Year
1	Salaries (annual)	9,142,500	13,516,875	17,891,250	20,310,000
2	Non-Egyptian Prof. compensations*	1,800,000	4,200,000	6,300,000	7,500,000
3	Consumables and stationary	252,000	510,000	984,000	1,350,000
4	Building maintenance	2,000,000	2,000,000	2,000,000	2,000,000
5	Lab equipment maintenance	1,000,000	1,000,000	1,000,000	1,000,000
6	Buildings depreciation annual payment	2,000,000	2,000,000	2,000,000	2,000,000
7	Lab equipment depreciation annual payment	1,000,000	1,000,000	1,000,000	1,000,000

for details see appendix 1

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No	Item	1 st. year	2 nd. Year	3 dr. year	4 th. Year
8	Landscape maintenance	500,000	500,000	500,000	500,000
9	Utilities and communication	2,000,000	3,000,000	4,000,000	5,000,000
10	Student services	500,000	1,000,000	2,000,000	4,000,000
11	Staff and employees services	100,000	200,000	300,000	400,000
12	Miscellaneous and contingencies	2,999,450	4,022,687	5,117,525	6,106,000
<b>Total</b>		<b>23,293,950</b>	<b>32,949,562</b>	<b>43,092,775</b>	<b>51,166,000</b>

#### 5- Investment expenses:

##### 5-1- Pre-operating expenses (consultations, curricula building, experts, travel ...), to be paid upfront.

Roughly it can be up LE5, 000,000.0. The pre investment expenses will be spent prior to the first year. The following list shows the break down of the pre-operating expenses.

Item	Budget
Curricula preparation	500,000
Travel expenses	500,000
Advertisement and publicity	500,000
Staff soliciting (academic)	1,000,000
Staff soliciting (non academic)	100,000
Preparatory year salaries and compensations	2,000,000
Contingencies	400,000
<b>Total</b>	<b>5,000,000</b>

##### 5-2- Libraries.

Table 19 shows estimated investments and expenses in the libraries over the first four years (after the preparation year).

*Table 19: Estimated annual investments and expenses in the libraries over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Libraries	1,000,000	2,000,000	2,000,000	2,000,000

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**5-3- Educational IT network (soft and hardware)**

Table 20 shows estimated annual investments and expenses in the Educational IT network over the first four years (after the preparation year).

*Table 20: Estimated annual investments and expenses in the Educational IT network over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Educational IT network	3,000,000	1,000,000	1,000,000	1,000,000

**5-4- Management Information system IT network (soft and hardware)**

Table 21 shows estimated annual investments and expenses in Management Information system IT network over the first four years (after the preparation year).

*Table 21: Estimated annual investments and expenses in the Educational IT network over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Management Information Systems IT network	3,000,000	1,000,000	1,000,000	1,000,000

**5-5- Transportation vehicles**

Table 22 shows estimated annual investments in transportation vehicles over the first four years (after the preparation year).

*Table 22: Estimated annual investments and expenses in transportation vehicles over the first four years (after the preparation year).*

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Transportation vehicles	1,000,000	500,000	500,000	500,000

**6- Summary of the additional investment expenses**

Table 23 shows a summary of the investment expenses over the first four years (after the preparation year).

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Table 23-a : Summary of investment expenses over the first four years (after the preparation year)

Item	Preparation Year
Pre-operating expenses	5,000,000

Table 23-b

Item	1 st. year	2 nd. year	3 rd. year	4 th. year
Libraries	1,000,000	2,000,000	2,000,000	2,000,000
Educational IT network	3,000,000	1,000,000	1,000,000	1,000,000
Management Information Systems IT network	3,000,000	1,000,000	1,000,000	1,000,000
Transportation vehicles	1,000,000	500,000	500,000	500,000
<b>Total</b>	<b>8,000,000</b>	<b>4,500,000</b>	<b>4,500,000</b>	<b>4,500,000</b>

7- Summary of the required budget over the first five years (Buildings an installations are excluded)

Table 24: Summary of the required budget over the first five years (including the preparation year) – Buildings an installations are excluded

Item	Preparation Year	1 st. year	2 nd. year	3 rd. year	4 th. year
Running expenses	0	23,293,950	32,949,562	43,092,775	51,166,000
Investments	5,000,000	8,000,000	4,500,000	4,500,000	4,500,000
<b>Total</b>	<b>5,000,000</b>	<b>31,293,950</b>	<b>37,449,562</b>	<b>47,592,775</b>	<b>55,666,000</b>

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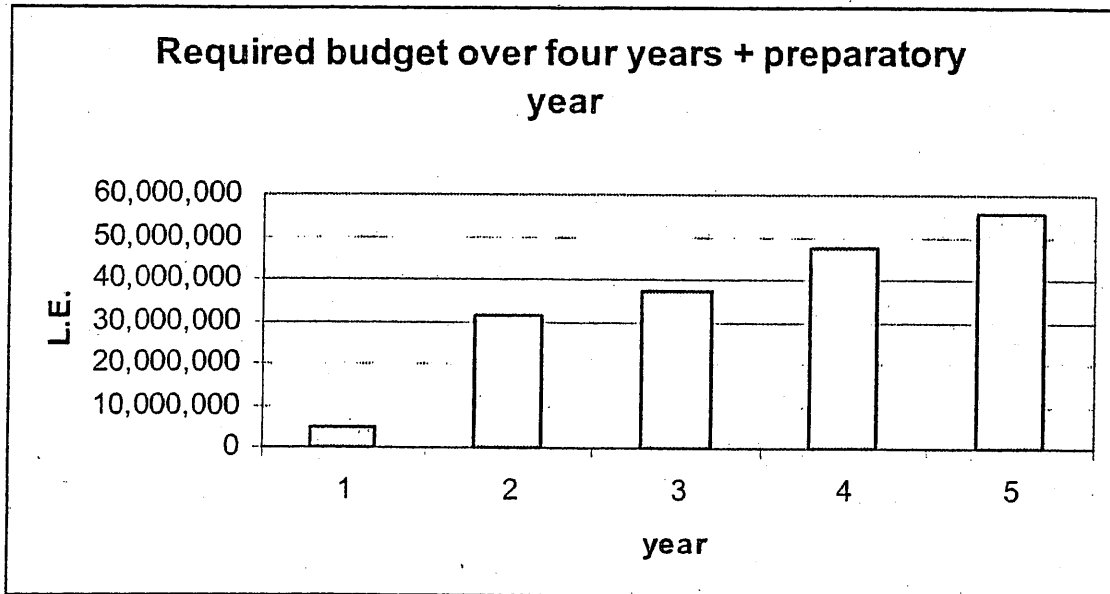


Figure 4: The required budget over the first five years (including the preparation year) – Buildings an installations are excluded

8- Summary of the required budget during; the two years construction period, preparatory year and nine years thereafter

Table 25 shows the budget required from the beginning of the construction till year 9 of operation.

Table 25 : Operating and running expenses over 9 years (not including investments in building, installations, etc.)

Year	Const . 1	Const. 2	Prep.	1	2	3	4	5	6	7	8	9
Running (L.E.)				23,293,950	32,949,562	43,092,775	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000
Buildings, land, labs, (paragraph 2-6-2) investments (LE)	66,522,500	66,522,500										
Preparatory year (LE)			5,000,000									
additional investment expenses (paragraph 6 table 23-b) (LE)				8,000,000	4,500,000	4,500,000	4,500,000					
<b>Total (LE)</b>	66,522,500	66,522,500	5,000,000	31,293,950	37,449,562	47,592,775	55,666,000	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000

9- Cash flow:  
9-1- Cash out.

Table 26 : Operating and running expenses over 9 years (not including investments)

Year	Const. 1	Const. 2	Prep.	1	2	3	4	5	6	7	8	9
Running (L.E.)				23,293,950	32,949,562	43,092,775	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000

Table 27 : Total operating, running expenses, and investments over 9 years + preparation year + two years for building construction

Year	Const. 1	Const. 2	Prep.	1	2	3	4	5	6	7	8	9
Running (L.E.)				23,293,950	32,949,562	43,092,775	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000
Investment (L.E.)	66,522,500	66,522,500	5,000,000	8,000,000	4,500,000	4,500,000	4,500,000					
Total	66,522,500	66,522,500	5,000,000	31,293,950	37,449,562	47,592,775	55,666,000	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000

**Total investments = LE159,545,000**

## 9-2- Cash-in .

Sources of cash:

- Undergraduate tuitions.
- Postgraduate tuitions.
- Research and consultations.
- Continuous education and training.

### 9-2-1 Tuitions:

Table 28 shows the suggested tuitions for under and postgraduates in Engineering and Business.

*Table 28: Suggested tuitions for under and postgraduates in Engineering and Business*

Item	Annual tuitions L.E.
Engineering undergraduate	25,000
Business undergraduate	20,000
Engineering postgraduate	12,500
Business postgraduate	10,000

### 9-2-2 Research and consultations

The contribution of research and/or consultations is based on the reasonable assumption:

25% of the Egyptian staff and 50% of the Non-Egyptian staff will conduct one research and/or consultation annually. Each research and/or consultation will contribute on the average L.E. 300,000 in Engineering and Business and 100,000 in Basic science.

### 9-2-3 Continuous education and training

The contribution of continuous education and training is based on the reasonable assumption:

20% of the in engineering and business will offer continuous education and training programs that contribute L.E.100,000 annually

Table 29 shows the expected cash-in from tuitions, research, consultations, continuous education, and training activities.

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Table 29: Cash-in from tuitions, research, consultations, continuous education, and training activities

Year	Prep.	1	2	3	4	5	6	7	8	9
Undergraduate tuitions	0	8,000,000	19,500,000	31,000,000	46,250,000	58,000,000	69,125,000	79,625,000	88,250,000	91,750,000
Postgraduate tuitions	0	0	575,000	1,150,000	1,437,500	1,725,000	2,012,500	2,012,500	2,012,500	2,012,500
Research/consult Eng	0	1,350,000	2,700,000	4,050,000	5,100,000	5,100,000	5,100,000	5,100,000	5,100,000	5,100,000
Research/consult Eng	0	1,050,000	2,100,000	3,150,000	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
Research/consult Eng	0	250,000	425,000	675,000	675,000	675,000	675,000	675,000	675,000	675,000
Cont. education / training engineering	0	280,000	560,000	840,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000
Cont. education / training business	0	240,000	480,000	720,000	960,000	960,000	960,000	960,000	960,000	960,000
<b>Total</b>	<b>0</b>	<b>11,170,000</b>	<b>26,340,000</b>	<b>41,585,000</b>	<b>59,702,500</b>	<b>71,740,000</b>	<b>83,152,500</b>	<b>93,652,500</b>	<b>102,277,500</b>	<b>105,777,500</b>

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Table 30: Cash-in and cash-out (operating and running expenses only, investments are not included) flow over 10 years

Year	Const. 1	Const. 2	Prep.	1	2	3	4	5	6	7	8	9
Cash-out (operating and running expenses)			0	23,293,950	32,949,562	43,092,775	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000
Cash-in (tuitions, research, training, etc.)			0	11,170,000	26,340,000	41,585,000	59,702,500	71,740,000	83,152,500	93,652,500	102,277,500	105,777,500
Cash-out – cash-in			0	-12,123,950	-6,609,562	-1,507,775	8,536,500	20,574,000	31,986,500	42,486,500	51,111,500	54,611,500

Positive cash flow is expected in the fourth year of operation (after the preparation year)

Table 31: Cumulative cash-in and cash-out (operating and running expenses only, investments are not included) flow over 10 years

Year	Const. 1	Const. 2	Prep.	1	2	3	4	5	6	7	8	9
Cash-out (operating and running expenses)			0	23,293,950	32,949,562	43,092,775	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000	51,166,000
Cash-in (tuitions, research, training, etc.)			0	11,170,000	26,340,000	41,585,000	59,702,500	71,740,000	83,152,500	93,652,500	102,277,500	105,777,500
Cash-out – cash-in			0	-12,123,950	-6,609,562	-1,507,775	8,536,500	20,574,000	31,986,500	42,486,500	51,111,500	54,611,500
Cumulative cash out			0	23,293,950	56,243,512	99,336,287	150,502,287	201,668,287	252,834,287	304,000,287	355,166,287	406,332,287
Cumulative cash-in			0	11,170,000	37,510,000	79,095,000	138,797,500	210,537,500	293,690,000	387,342,500	489,620,000	595,397,500
Cumulative out - in			0	-12,123,950	-18,733,512	-20,241,287	-11,704,787	8,869,213	40,855,713	83,942,213	134,453,713	189,065,213

The cumulative cash-in will exceed the cumulative cash-out in the fifth year of operation (after the preparation year)

**10- Total investments**

Table 32 gives the total investments including, construction, preparatory year and additional investments.

**Table 32: Total investments**

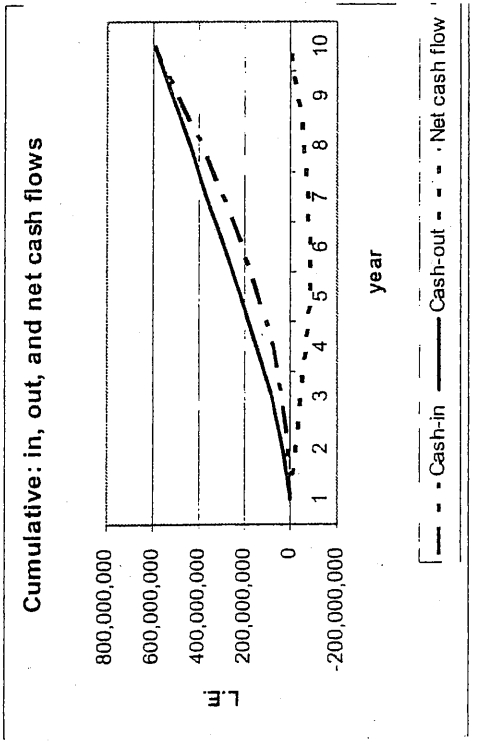
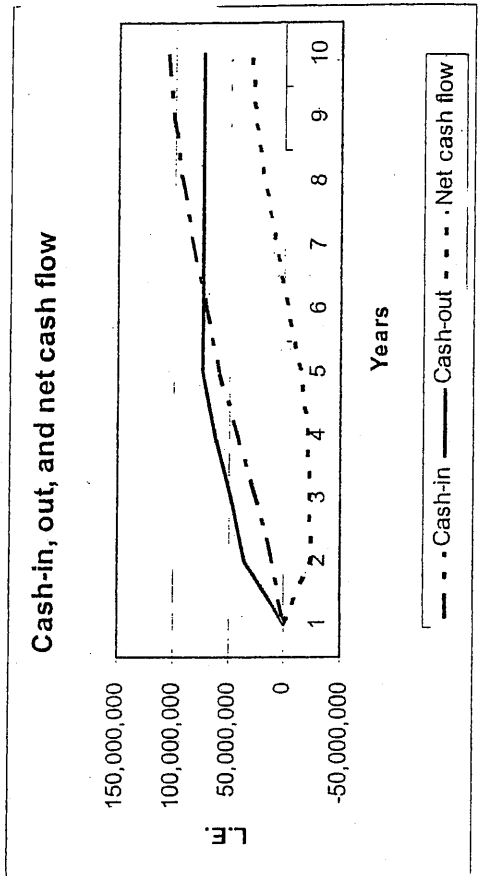
Year	Const. 1	Const. 2	Prep.	1	2	3	4	5
Buildings, land, labs, (paragraph 2-6-2) investments (LE)	66,522,500	66,522,500						
Preparatory year (LE)			5,000,000					
Total	66,522,500	66,522,500	5,000,000	8,000,000	4,500,000	4,500,000	4,500,000	
<b>Grand total</b>								<b>159,545,000</b>

It should be observed the extra cash-in table 31 (LE189,065,213) exceeds the total capital investments (table 32) (LE159,545,000)

M. Hamdy Elwany

Professor

V3



a

b

**Figure 5-a : Cumulative in, out, and net cash flows**

**Figure 5-b: In, out and net cash flows**



## 11- Concluding Remarks

All the above estimates are budget estimates, though they are based on personal wide experience they need to be reassessed carefully, the error in these estimates is within the error permissible in pre-feasibility studies.

The above estimates are based on:

1. Though the study in the two colleges (Engineering and Business) is recommended to start at the beginning of the first year, not all the programs to be offered,
2. Enrollment for post-graduate on the master level can begin as from the first year, but Ph.D. enrollment in many programs is not feasible before the third year,
3. The number of undergraduate enrollments suggested in this report, in general term, and is acceptable. However the number of postgraduate enrollments is rather optimistic,
4. The budget required for the preparation year is LE5 Millions, for the first year LE74 Millions, and is expected to be LE105 Millions in the fourth year (after the preparation year),
5. The budget after the fourth year (full operation) will not vary drastically unless new activities or concepts are adopted.

It is very interesting to noticed that, the cumulative cash-in will exceed the cumulative cash-out in the fifth year of operation (after the preparation year), Also, It should be observed the a shown in table 31 the cumulative difference between cash-in and cash-out (LE189,065,213) in the ninth year exceeds the total capital investments (LE159,545,000)

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12- Appendix 1:

**4-12 Non-Egyptian professors' compensations:**

*Table 3-a: Academic staff projections.*

	Total No. of Academic Staff in the 1 st. Year		Total No. of Academic Staff in the 2 nd. Year		Total No. of Academic Staff in the 3 rd. Year		Total No. of Academic Staff in the 4 th. Year	
	Egyptians	Non Egyptians	Egyptians	Non Egyptians	Egyptians	Non Egyptians	Egyptians	Non Egyptians
Engineering	10	4	20	8	30	12	40	14
Business and Humanities	10	2	20	4	30	6	40	8
Basic Sciences	10	0	13	2	21	3	21	3
<b>TOTAL Egyptians</b>	<b>30</b>		<b>53</b>		<b>81</b>		<b>101</b>	
<b>Total Non-Egyptian</b>		<b>6</b>		<b>14</b>		<b>21</b>		<b>25</b>

In addition to the salary paid for Egyptian professors, Non-Egyptian professors Compensation (covering one air ticket per year for three members of the family, apartment rent, transportation, gratitude ... etc. LE25, 000 per month = LE300.000 annually)

M. Hamdy Elwany

Professor

V3

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وزارة الانتاج الحربي  
Ministry of Military Production  
الموقع العام لقطاع التدريب  
General Site for Training Sector

مساكن النخبة

ELNAHDA HOUSING ZONE

مجمع مدارس النخبة

SCHOOL

شارع النخبة

ELNAHDA ST

AL-NO. BELBEIS DESERT ROAD

شارع النخبة - طريق الصحراء الغربية

محطة الغاز STATION

محطة الغاز STATION

