



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري
Arab Academy for Science, Technology & Maritime Transport

COLLEGE OF ENGINEERING AND TECHNOLOGY CET

Cairo Campus

STRATEGIC PLAN 2013 – 2018

Cairo, 2013

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Members of the Strategic Plan Committee

Dr. Gamal I. Selim

Dr. Mohammed Abu El Dahab

Dr. Khaled Shehata

Dr. Samir Youssef

Dr. Rania El Sharkawy

Dr. Sherif El-Fiki

Dr. Sherif F. Fahmy

SWOT Analysis Team

Dr. Rania El Sharkawy

Dr. Sherif El-Fiki

Dr. Sherif F. Fahmy

Eng. Hammam Abd El-Aal

Arch. Mohamed El-Azzazy

Eng. Mohamed Said

Eng. Nour El-Din Sami

Eng. Ahmed Mazen

Eng. Khaled Mohsen

Eng. Abd El-Elah Maged

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THE STRATEGIC PLANNING PROCESS

An organization's strategic planning is generally defined as a process of identifying its future direction for decision-making in the pursuit of its objectives.

Thus, in preparation for the present strategic plan for the College of Engineering & Technology 2013-2018, the present volume first sheds light on the College's history, raw data and present figures, to determine the current state of our institution. Following, the vision, mission and strategic goals of the institution are developed, within a participatory approach that actively involves all stakeholders.

Based on this initial phase, realistic SWOT analyses to institution's present state are carried out to identify the major points of Strength, Weakness, Opportunities and Threats; to capitalize upon the genuine influential aspects in the plan to follow.

The findings of the SWOT analyses paved the way towards articulating the future strategic goals, together with their practical breakdown into specific objectives and measurable policies; which will gear all future decisions towards the excellence of our institution.

At the end of the volume, three appendices are attached to give further information about the present facts and figures, the future research areas and the undertaken financial strategy in the College.

Foreword

By: Dean of the College

In the year 1998, the College of Engineering & Technology embarked its first academic semester in Heliopolis, Cairo. Ever since its inception, the College has been the flagship in the Cairo campus. However, the educational environment in Cairo has undergone significant transitions since then. Educational and technological innovations have progressed at a brisk pace, and many new private universities have sprung up in the City. In this environment of fast paced innovation, technological advances and fierce competition, an institution that wishes to survive and thrive must ensure that it is equipped with the most up-to-date information, in order to plan strategically towards meeting such challenges.

Towards that end, the College of Engineering & Technology has commissioned a team of faculty members to develop this five-year strategic plan. The first step towards realizing the purpose of this plan was to identify the status quo of the college, and then to analyze the strengths, weaknesses, opportunities and threats that face our institution. This information-collection process was run under a comprehensive participatory approach, which involved all stakeholders; namely students, faculty, staff, parents, industrial advisory board members and representatives of the broader local community.

Using this data, the team was able to come up with a future vision of the strategic goals, detailed objectives, implementation mechanisms and measureable policies. Together, these set the framework for gearing the development of our institution towards a more desirable status, as a centre of excellence that occupies a leading position in the region, and aspires to an advanced international academic ranking.

As I look forward to realizing the aforementioned goals, I find it important to emphasize that this work is one step in the continuous effort to update our status. This should take place via regular forums with all stakeholders, which will be crowned by publishing a new strategic plan every five years. I trust that this would keep us up with the surrounding fast-paced changes, to maintain our local, regional and international distinction.

Thank you;

Dr. Gamal Selim
Professor of Computer Engineering
Dean, College of Engineering & Technology

1 HISTORY

1.1 ESTABLISHING THE AASTMT

The Arab Academy for Science, Technology and Maritime Transport (AASTMT), was established in accordance with the recommendations of the League of Arab States' Transport Committee. This was initiated in the meeting of March 11, 1970; followed by the 2631/1970 League decree for founding a regional center for maritime transport training and education.

The decree commissioned the Arab Republic of Egypt, on behalf of Arab countries, to seek technical aid from the United Nations' specialized organizations. Consequently, the United Nations Development Program (UNDP) approved contributing 3.2 million Dollars on the condition that the Arab countries provide a fund of 8.25 million Egyptian Pounds over a period of five years.

Afterwards, the committee selected the city of Alexandria, as a coastal city that suits the maritime purposes of the Academy, which is also known for its cultural legacy and unique geographic location.

Since then, the Academy has undertaken several subsequent expansions in terms of branches, colleges and sub-specialties. Besides the headquarters in Abu-Kir – Alexandria, the Academy currently runs campuses in Miami – Alexandria, Dokki, Heliopolis and Smart Village around Cairo, Aswan, Port Said and Lattakia in the Arab Republic of Syria.

1.2 THE COLLEGE DEVELOPMENT

In 1998, AASTMT introduced two educational programs leading to Bachelor of Engineering degrees in Cairo. The AASTMT established a campus in the eastern part of Cairo, located in Heliopolis district. The contemporary urban campus is self-contained with dorms, medical care, banking, transportation and other facilities on site. The College of Engineering at that time offered Bachelor in “Electronics and Communication Engineering” and “Computer Engineering”. The first batches of students in those programs were enrolled in September 1998. This was followed by launching the “Construction and Building Engineering”, and “Architecture Engineering and Environmental Design” departments in 1999, followed by the departments of “Mechanical Engineering – Mechatronics” and “Electrical and Control Engineering” in 2004. All these Bachelor programs require a minimum of 10 study-semesters, i.e. 5 academic years to graduate licensed engineers.

The college started to develop its teaching programs according to two basic principles. First, that the faculty members, administration staff, and students are the main driving force of the educational process and are the source of creativity and innovation. Second, that the educational activities should challenge students' intellectual abilities and stimulate discussion and new ideas, whether these educational activities are carried out in lecture rooms, laboratories or workshops.

1.2.1 Undergraduate Studies

Since its inauguration in 1998, the College of Engineering and Technology has found it a priority to standardize the teaching programs and courses it offers to the different sectors of its student body. This is meticulously carried out following a framework in accordance with the criteria of the Committee of the Engineering Sector at the Supreme Council of Universities (SCU). All college programs have been accredited by the SCU since their inception. The most recent validation of the Supreme Council of Universities was issued in 2011 (decree 197/2011) and is valid till 1/12/2013. Further, the programs offered by the College are acknowledged by the (SCU) on 1996 and renewed on 2002 and 2007, respectively.

In September 1999, the College of Engineering was awarded the ISO-9000 certification in education attesting the high quality control of its teaching programs, courses, academic staff, administration and educational resources.

On the other hand, the year 2005/2006 marks a significant milestone for the College, as the full accreditation from the British Professional Engineering institutions were obtained, namely ; (IMechE), (IEE), (ICE) and (IStructE) for all the engineering programs. The accreditation from the Royal Institute of British Architects (RIBA) part 1 2005/2006 and renewed 2010/2011 for our architectural engineering program.

However, further detailed statistics of the quantitative progression is introduced in Appendix 1 at the end of this volume.

1.2.2 Postgraduate Studies

Graduate studies leading to a Masters degree in the various engineering disciplines began in the year 2000, when the “Electronics and Communications Engineering Department” started

its program. This was followed by the “Computer Engineering Department” in 2002, the “Electrical and Control Engineering Department” in 2004, the “Construction and Building Engineering Department” in 2007, the “Architectural Engineering and Environmental Design Department” in 2007 by and the “Mechanical Engineering – Mechatronics Department” in 2011. All programs require a minimum of 4 study/research terms, i.e. 2 academic years to award the Master’s degree. All awarded postgraduate degrees are accredited by the Supreme Council of Universities as equivalent to those offered by state universities. **The last such accreditation was in decree No. 48 of 2012.**

1.3 ACADEMIC AND ADMINISTRATIVE STRUCTURES

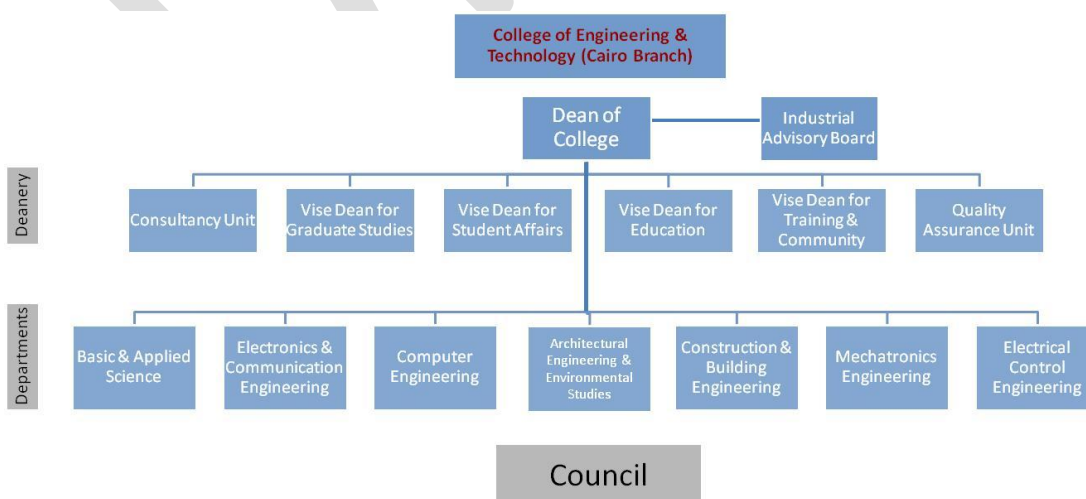
The following section is meant to introduce the College in terms of its academic departments, and the administrative structure that runs all involved processes.

1.3.1 Academic Structure

The Departments that cater for the award of the aforementioned degrees are:

1. Department of Basic and Applied Sciences
2. Department of Electrical and Computer Control Engineering
3. Department of Electronics and Communications Engineering
4. Department of Computer Engineering
5. Department of Mechanical (Mechatronics) Engineering
6. Department of Construction and Building Engineering
7. Department of Architectural Engineering and Environmental Design
8. Department of Engineering Higher Studies

1.3.2 Administrative Structure



2 VISSION, MISSION AND STAKEHOLDERS

2.1 College Vision

Our Vision is to excel as one of the best engineering colleges locally and regionally and to maintain internationally recognized programs with an advanced academic rank.

Proposed Development:

Our vision is to realize an advanced academic ranking locally, regionally and internationally; in terms of knowledge dissemination, research development and community service.

2.2 College Mission

The College of Engineering and Technology in Cairo is one of the colleges in the AASTMT, a unit of the Arab League conceived to meet the educational and research needs of the Arab region and Africa.

The Cairo campus, situated in the capital of the most populous Arab state, seeks to graduate knowledgeable engineers who are able to meet the development requirements of the region, engage in lifelong learning, practice the engineering profession ethically and compete with international counterparts.

Proposed Development:

Being affiliated to the League of Arab States, the College of Engineering in Cairo serves the educational and research needs of the Arab region and Africa. It seeks to recruit high caliber students and faculty, to graduate competent engineers who are able to contribute to the development of the industrial community in the region, engage in lifelong learning, and practice engineering ethically and proficiently.

2.3 Stakeholders

The College of Engineering and Technology at AASTMT works closely under a participatory approach with an extended network of stakeholders. At the internal level, students, parents, faculty members, and administrative and technical staff set the backbone of these stakeholders.

At the broader level, positive contribution is always taking place from the business and industrial partners, whose contribution is embodied in the advisory board participation in decision-making, as well as their material donations and scholarship schemes.

The role of local governmental bodies and educational authorities like the Supreme Council of Universities and the Ministry of Higher Education is no less important. They play a major role in shaping our policies and strategies.

Likewise, the Engineering Syndicate and other non-governmental accreditation bodies have a significant influence upon the College's policies and decisions. Last, and probably most important, is the fruitful interaction with the local community.

The diverse perspectives and valuable input of these partners set a stabilizing foundation for supporting our eager ongoing successes and launching our ambitious development plans

3 COLLEGE VALUES

Excellence

We strive for the highest quality in every educational aspect and activity, be it at the level of staff, students or alumni.

Ambition

We have high aspirations for the University and all its staff, students and alumni to make a positive difference to the wider world and the future.

Transparency

We find it important to be transparent and accountable for all decisions and actions undertaken in the College.

Diversity

We realize strength in the diverse experiences and backgrounds of our staff, students and alumni.

Equity

We believe in the equal treatment of all in terms of rights and responsibilities.

Respect

We emphasize the values of respecting all traditions, societies and individuals amongst the entire College community.

4 SWOT ANALYSIS

SWOT analysis is a structured planning method used to evaluate the **Strengths, Weaknesses, Opportunities, and Threats** involved in a project or an organization. It involves specifying the objective of the project / organization and identifying the internal and external factors that are favorable and unfavorable to achieving that objective; **Strengths and Weaknesses** are internal factors, whereas **Opportunities and Threats** are external factors. From that perspective, it has been considered as a standardized initial stage of planning that helps the college to focus on key issues towards its strategic decisions and future development.

The College of Engineering and Technology has assigned a team to undertake the SWOT analysis in coordination with the Strategic Planning Committee of the College. This team has been formed to pursue the study, as well as to design and analyze various questionnaire surveys that were tailored to address different stakeholder groups. A standard SWOT analysis template is then used to compile the results of the study, to act as a springboard for phrasing our vision, mission and strategic goals.

For this purpose, specially-designed questionnaire surveys were developed and distributed to different stakeholder groups. Every group was requested to reflect their perception of the performance and importance of every studied aspect. Throughout the analysis of the results obtained by those questionnaires, **Strengths, Weaknesses, Opportunities and Threats**, together with their relative significance were identified by members of the SWOT analysis team.

The findings of the above analysis were then synthesized towards the development of the strategic priorities which are expected to guide the College principal decisions and orientations in the forthcoming five year. Such orientation is then manifested under the strategic goals, objectives and measurable policies, as discussed in subsequent sections of this report.

4.1 STRENGTHS

After finishing the survey analyses, the team concluded to the following points of strength, being most characteristic to the College status.

Performance of Professors and Teaching Assistants

In all surveys conducted, across all constituents, the academic performance of both professors and teaching assistants was indicated as one of the major strengths in the College. The competence of the academic staff ensures that teaching is performed at the highest level possible and allowing close interaction among faculty and students.

Diversity of Qualifications of Faculty Members

The diversity of qualification of faculty members in the College is one of our main strengths. Our faculty members have completed their postgraduate studies at top universities all over Europe, North America and top notch universities in Egypt. There is also a small, but not insignificant, number of faculty members who join our college from industry. This wide diversity of qualifications ensures that the teaching process and research is a varied and enriching experience in the College.

Cairo Campus Location

The campus location within the metropolitan area of greater Cairo, is another strength of the College. Being located in one of the most populous cities in Egypt, the Middle-east and Africa; the College can benefit from a lot of potential credentials associated with this distinguished site. As a capital city, Cairo is the host for many central administrative bodies. The infra-structure and transportation facilities promote domestic and international interaction with different academic and professional entities. This comes in contrast to the location of competing private institutions that tend to be located at the peripheries of Cairo, leading to transportation problems, long commutes and few amenities in the neighborhood of their campuses. By contrast, the location of the Cairo campus is easily accessible from all major residential areas of the city, and is surrounded by typical metropolitan amenities. Nevertheless, the cultural and historic contexts of Cairo make it a unique place to live, learn and develop.

Advanced Laboratories

The quality of laboratories in our college is another strength that is unique to our institution. The labs are equipped with state of the art equipment, to involve students in direct application, hence accomplish practical experience parallel with the taught theories. Our labs are subject to constant upgrading and maintenance to remain in efficient shape.

Quality of Academic Curricula

Constituents have consistently identified the quality of our curricula, with its emphasis on state of the art technologies and its coverage of the principles of engineering, as one of our major points of strength. The quality of our curricula allows us to graduate engineers who are well equipped to meet the challenges of the 21st century.

Interactivity of Teaching Process

This is perhaps a direct consequence of two other strengths of the College, i.e. the reasonable class sizes and the academic performance of our faculty members. Students have consistently identified the interactivity they experience in their learning process as one of the features they particularly like about the College. This interactivity allows students and faculty members to develop better interpersonal skills, which positively reflects on the overall educational process.

Office Hours

Another factor that has been consistently addressed as a point of strength in all surveys is the fact that our faculty members are ethically and institutionally obliged to provide extra hours to respond to the individual needs and inquiries of students. This is a feature that is not found in most competing universities, especially as this is performed at the level of the professors as well as teaching assistants.

Integrated Facilities

Under this title, participants referred to on-site banking facility as well as a variety of food serving outlets. The bank branch located in the Cairo campus is dedicated to paying tuition fees by students as well as paying salaries to the College employees. The particularity of this branch partly emerges from belonging to the NSGB bank, being a modern amenity with friendly service and branches all-over Egypt. On the other hand, the various on-site cafeterias and food kiosks have been identified as an interesting feature in the College, particularly those belonging to well-known franchises which can provide quality services without having to leave campus.

International Validation of the College Programs

All college programs are locally and internationally accredited. In this regard, the Department of Architecture is awarded the 'Royal Institute of British Architects – RIBA' unconditional validation for its Bachelor and Master programs. The rest of departments received the 'Accreditation Board for Engineering and Technology – ABET' validation as well. Such encounter with high profile institutions assures us in the first place, as well as others that the quality of education we are providing is up to the international standards we aspire for.

Financial Support to Students

The College pays special attention to a wide spectrum of social and academic cases. Distinguished students receive scholarships. Others who experience financial difficulties due

to the loss of parents are fully exempted from the tuition fee. Even postgraduate students who study abroad receive a grant for the completion of their study. This extends healthy relationships amongst the College community, which are based on competition, solidarity and support.

Transparent Follow-up Mechanisms

Routine reports are announced to students to help them keep track of their performance. Besides the final exam, students are regularly examined in weeks seven and twelve. Grades are then uploaded to the system where students get direct access to the details of their accomplishment in all courses. Should students have inquiries or objections about their grades, a feedback channel is made available via 'Student Appeal' forms, whether physical or online. This should promote students responsibility and faculty accountability.

Architectural Design of the College Premises

Despite the fact that spaces are becoming seriously insufficient to accommodate the ever-increasing number of enrolled students and appointed staff, the state-of-art design of the College buildings is quite characteristic in terms of the interior ambience and the exterior appealing design.

4.2 WEAKNESSES

In a similar fashion, the following points of weakness were concluded, being most challenging to the development of the College.

Space Limitation on Campus

One of the main weaknesses identified by the study has been the lack of sufficient space on campus. This is reflected in office spaces, availability of educational and recreational spaces as well as the cramped open spaces in general. This is further emphasized in accordance with the increasing number of enrolled students, parallel with our urban location which places further restrictions on expansion.

Internet Service

Most constituents have identified the Internet service provided in the College, both wired and wireless, as a weakness. This is due to many factors, mainly the intermittent nature of the service, the slow speed during peak hours and the fact that many collaborative services, which can be of direct benefit to research activities, are blocked using web-filters.

Proportion of Full-time to Part-time Faculty Members

The balance between fulltime to part-time faculty members has been identified as an added weakness. At present, part-time faculty members are significantly outnumbering their full-time counterparts. This places an added burden on top of the responsibilities of fulltime faculty members, particularly in terms of administrative work.

Equal Opportunities

Some unclear job descriptions conclude to ambiguity of responsibilities, which frequently results in overlapping duties and duplication of assignments. This becomes particularly problematic when groups who share the same kind of work do not receive equal salaries, or promotion opportunities. This issue was raised by various participant groups including teaching assistants, administrative employees and menial workers. Therefore, it is believed that clearer description of job responsibilities needs to be established in order to prevent an unfair distribution of workload.

Research Promotion

Despite the fact that the College undertakes a decentralized scheme for funding conference participation, members of the academic staff suggest that this budget needs to be significantly increased, to promote further encounter with the scientific community around the world. On the other hand, the absence of clear policy for managing, promoting and funding research projects seemed to be another weakness.

Developing Staff Skills

Several participants referred to the significance of continuous staff development as a cornerstone for the development of the College. They suggested that the training courses offered by the college were both quantitatively and qualitatively dissatisfactory. A yearly plan needs to be developed to improve the number of courses held as well as the quality of the material they address to promote favorable career development.

Salary Scale

Among the constituents surveyed, a majority of menial and administrative staff identified inadequacies of monthly income as a weakness in the College of Engineering. A small, but significant, minority of academic staff also identified this issue as a weakness. It should be noted that before the proliferation of private universities in Cairo, the compensation packages offered by the College were significantly higher than most other educational institutions. This is probably an exemplification of lacking regular reviews of employees' salary plans.

However, with the proliferation of private universities, monthly incomes have become competitive with, but no longer significantly larger than, the compensation packages of our college.

Social Activities for Staff and Faculty

The lack of regular and inclusive social activities among faculty and staff has also been identified as a weakness by most constituents. It is known that this kind of activities has a direct impact upon academic, institutional and personal interrelationships within the College.

Parking Lots

Parking space limitations set a serious problem in the College's urban site. With the increased number of cars owned by full-time faculty, part-time faculty, administrative staff, technical staff and students who use them for daily commute, this problem augments to the limits that may jeopardize the time effectiveness for all parties involved in the educational process.

Fundraising

At present, the College budget is solely dependent on students' tuition fees. It is important that the College adopts fundraising programs and joint projects with the industry to generate parallel resources, which would contribute to funding all educational, research and development expenditure. This applies to student projects, postgraduate scholarships or even professional consultancies.

Practical Training

Practical training is significantly important for Engineering students. It is the context where students can develop hands-on experience, and synthesize the outcome of the courses they study together with the professional challenges they may face in their future practice. Despite the efforts undertaken by the College to help students find suitable training opportunities, this issue needs to be tackled at a more institutionalized level. This can probably flourish under an extended communication network between the College and the industrial bodies. This should definitely allow larger numbers of students to get appropriate training opportunities in distinguished and diverse corporations.

4.3 OPPORTUNITIES

Following the analytical studies applied to the stakeholder surveys, the aspects hereunder were most frequently referred to as opportunities which can improve the College status if well-exploited.

The Affiliation of the AASTMT to the Arab League

AASTMT, and consequently the College, are affiliated to the League of Arab States as a specialized organization in education, research and consultancy. The College must make the best potential use of this opportunity towards facilitating more advantageous status for its students and staff. This may be accomplished by developing further agreements and protocols with different Arab and international bodies, using the organization's affiliation.

College Relationships with Business and Industrial Communities

Cairo, the host city of our College, accommodates a vast array of local and international business corporations. Moreover its surrounding industrial zones set an added value in this regard. These potentials can be utilized towards extending agreements and memoranda of understanding with the surrounding industrial community. This community can contribute to students' training, graduates' employment, updating the College's policies and strategies, and other channels of cooperation. Also, the relationship between faculty members and company boards is an opportunity for recruiting faculty members from industrial backgrounds as well as having faculty members do sabbaticals in the industry for the mutual benefits of both parties.

Regional and International Agreements

Being a pioneering non-profit organization in the region, the College of Engineering has a unique opportunity to extend diverse agreements with local, regional and international organizations. These agreements can address the academic purposes, research activities as well as the technical consultations which may be delivered various partners around the world.

Relationship with the Local Community

The geographic proximity of a large and vibrant community to the College is an opportunity that needs to be further exploited. It is almost for granted that strengthened communication with the local community is inevitable for the genuine success of an academic institution. In a

sense, the local community is the final beneficiary of academic programs. At the same time, it is one stakeholder, who has a role to do towards shaping and supporting the objectives of an institution. Nevertheless, they are the current, future or former students and parents who represent the institution in a wide range of contexts. Therefore, the prosperity of an institution is never realized without the healthy and mutual interconnectedness with its surrounding local community. Not only should the College think of the valuable input this community can contribute to its development, but also devise more means to serve this community. Such mutual dependency is inevitable for the fruitful fulfillment of the holistic role and ethical responsibility of the College as an institution that should gear the welfare of its society.

Networking with Alumni

The AASTMT graduates form a large component of the business community in Egypt and the Middle-east. Improving communication with this diverse and extended network should be further utilized. This should provide the College with insider views in many important organizations, to open up more routes to better serve the community. This can take place in postgraduate studies, specialized courses, joint research, technical consultations, curricular development and many other services. On the other hand, this network can set a springboard for extending publicity, and supporting future collaboration with the industrial bodies they work for.

International Student Recruitment and Exchange Programs

The AASTMT profile is quite rich with numerous distinguished graduates who occupy leading positions in the Arab countries. More recently, the College has extended collaboration channels with African partners. The early signs are very encouraging. Therefore, the College needs to foster such links with the neighboring Arab countries, and seek new opportunities for recruiting more students from other African countries. Nevertheless, developing exchange programs can set an effective medium for exposure to our students and faculty, to exchange diversified experiences with other parts of the world.

Qualitative Development of Educational Programs

Quantitative measures have always set an easy approach to evaluate the development of an institution. In the past years, the College has accomplished a distinguished success in this regard. More recently, we started to employ this quantitative success towards seeking more qualitative distinctiveness. This was confirmed by the world-class accreditations our programs have received. Yet, we are keen to maintain and develop these standards to keep-up with the top-quality education we seek. However, we believe that there is an opportunity to make use of this in more selective students' acceptance policies, scholarship schemes, faculty recruitment, and research opportunities.

Interdisciplinary Programs

There is a worldwide tendency towards multi-disciplinary research. With its seven specialized departments, the College possesses a distinct opportunity to develop interdisciplinary programs that allow more than one domain of knowledge to work together in a fruitful synergy. This is an opportunity that needs to be endorsed.

Public Perception of the College Reputation

Due to its long history in Alexandria and Syria, the AASTMT has acquired a wide positive reputation in the region. As a continuum of the same distinctiveness, our College occupies a leading position among competing institutions in the region. We should maintain this unique status, and invest in this reputation towards realizing a more advanced ranking among other world universities.

Relationship to State Universities

In accordance with their distinct profiles, state universities' tutors are among the best in the Country. Similarly, with the special status of our College as a pioneering non-profit organization under the League of Arab States, we have an advanced opportunity to recruit top quality faculty. Inviting state university faculty to join our professors in teaching and research (on part-time basis) would undoubtedly enrich the program and diversify the experience. Though it is currently being applied, but there are extended opportunities to improve its benefits in both pedagogic and research domains.

Graduates' Capabilities in Relation to Market Requirements

The high quality of our graduates and their ability to fill market niches is confirmed by the positive feedback we received from our industrial partners. The College has an opportunity to promote this towards better placement opportunities for our graduates, as well as an opportunity towards recruiting more promising calibers.

4.4 THREATS

Just as in the previous sections, the analytical examination of the survey results concluded to the following external influences, which could pose threat to the future plans of the College.

The Impact of Rising Competition upon Student Recruitment

The large number of private universities in Cairo could represent a threat to the College's competitiveness, with the extended choices made available to new applicants. The College needs to keep an edge to differentiate itself from competitors, in order to offer a compelling reason for new students.

The Impact of Rising Competition upon Faculty Recruitment

In addition to competing for students, the increasing number of private universities in Cairo is also competing for faculty members, making it difficult to recruit top-notch faculty members, unless the College maintains an advantageous status academically, professionally and financially.

Weakness of Pre-university Education

The unfortunate level of the pre-university education nationwide hinders the quality of education adopted by the College. The overall lack of preparedness in math and science forces the College and its departments to put exceptional effort and resources into improving their level to comply with our benchmarks. This also applies to their communication skills and hardworking faculties.

Raising Fund for State Universities

Working under the State umbrella, State universities are eligible to direct governmental funding as well as a great deal of the international donations and long-term loans. Moreover, the new (distinct) programs they opened recently are financially supported by tuition fees,

which would improve their resources and facilities. This, in a way, poses a threat to the College that is merely reliant on the tuition fees.

The Impact of State Regulations

Being validated by several local and international institutions, the College programs had to conform to the standards set by these different bodies. The past few years have witnessed multiple changes in the state's educational legislations. These changes may contradict with the requirements set by other international validating organizations. Some of them may even compromise the quality of education for their overly bureaucratic limitations and procedures. The College should maintain balance between adhering to such regulations and keeping-up with its distinctive educational identity.

Tuition Increases in Relation to Annual Inflation and Economic Crises

The rates of annual inflation together with the global economic crises and challenges put severe pressures upon the College, with reference to its financial commitments. On the other hand, a dramatic increase in tuition fees threatens students' enrollment in our institution quantitatively. Finding the correct balance between responding to rises in inflation and trying to keep tuition fees as stable as possible should be a priority to the College.

5 COLLEGE STRATEGIC GOALS

Based on the previous analyses, the following strategic goals were formulated as governing criteria that should enlighten all future decisions towards the prosperity and development of the College of Engineering and Technology in the forthcoming five-year plan.

- Maintaining the commitment to quality teaching and learning
- Developing innovative academic programs
- Promoting academic research
- Strengthening bonds with the community and the industry
- Extending academic cooperation with local, regional & international institutions
- Improving the job satisfaction for faculty and staff

The following section will introduce every strategic goal together with its detailed objectives and measurable policies.

5.1 Strategic Goal 1: Maintaining the commitment to quality teaching and learning

Under this strategic goal, the college would abide with the following objectives:

1. Recruiting high caliber students
2. Preserve the commitment to international and local accreditations for the educational programs
3. Recruit and retain the best faculty and staff
4. Enhance faculty teaching potentials
5. Adopt an effective academic and administrative structure
6. Develop challenging up-to-date curricula
7. Adopt transparent assessment policies

The forthcoming section will introduce in details the policies to be undertaken towards the pursuit of this goal

5.1.1 Objective (1): Recruiting high caliber students

Policies

1. Refining admission standards.
2. Applying student probation procedures.
3. Promoting scholarships to distinguished students.
4. Propagating for academic programs and international collaboration programs.

5. Maintaining international standards for student / staff ratio.
6. Promoting practical training opportunities for students.
7. Supporting extra-curricular activities for students.

5.1.2 Objective (2): Preserve the commitment to international and local accreditations for the educational programs

Policies

1. ABET Accreditation.
2. RIBA Accreditation.
3. NAQAAE Accreditation.
4. IET Accreditation.
5. SCU equivalence of undergraduate programs.
6. SCU equivalence of post graduate programs.

5.1.3 Objective (3): Recruit and retain the best faculty and staff.**Policies**

1. Developing recruitment strategies that attract remarkable faculty.
2. Endorsing attractive financial packages to keep up with the rates of competitor institutions.
3. Encouraging faculty motivation and mobility.
4. Encouraging outstanding performance in teaching, research and administration.

5.1.4 Objective (4): Enhance Faculty teaching potentials.**Policies**

1. Encouraging collaboration with corporate partners.
2. Supporting continued development programs / courses.
3. Promoting academic exchange programs.
4. Allocating funds for innovative teaching methods / facilities.
5. Exchanging expertise at local and national levels.

5.1.5 Objective (5): Adopt an effective academic and administrative structure**Policies**

1. Identifying job description with clear hierarchy of authorities and responsibilities.
2. Maintaining balance between research, teaching and administrative tasks assigned to faculty.
3. Expanding training and career development programs for administrative and technical staff.
4. Reducing bureaucracy, paper work and use shorter links with different college personnel.
5. Strengthening the role of the College and Department councils.

5.1.6 Objective (6): Develop challenging up-to-date curricula.**Policies**

1. Providing sufficient space for practical applications.
2. Promoting diversity by extending the spectrum of offered elective courses.
3. Addressing contemporary challenges and up-to-date discourses.
4. Tackling local problems in the light of global advancements and recent findings.
5. Improving student skills in: design and creative problem-solving - self-learning and research – communication teamwork.

5.1.7 Objective (7): Assessment policies.**Policies**

1. Adopting transparent and clear grading criteria.
2. maintaining a balanced reflection of intended learning outcomes.

Goal 1: Maintaining the commitment to quality teaching and learning				
Objectives	Policies	Responsibility	Frequency	Metric
1. Recruiting high caliber students	1. Refining admission standards	Dean of Admission College Dean Heads of Departments Financial Department	Biannually	Meetings. Reports by HOD's / Dean. Feedback from Admission.
	2. Applying student probation procedures	College Dean Heads of Departments Academic Advisors Parents	Biannually	College Board Meetings. Departmental Meetings. Updating advising sheets. Signing probation concession.
	3. Promoting scholarships to distinguished students	President of the Academy Dean of Admission Dean of College Heads of Departments Vice-dean for Student Affairs Financial Department	Biannually	AAST Educational Council. College Board Meetings.
	4. Propagating for academic programs and international collaboration programs	Dean of College Heads of Departments Department of Marketing and Public Relations Documentation and news propagation unit	Biannually	Orientation sessions [3-4 sessions every term]. Newspapers [3-4 adverts per term]. Web-sites [Regular updates to web-site + 2-3 popular web-sites to advertise programs]. School visits.

				Brochures [printing 10,000 brochures annually].
	5. Maintaining international standards for student / staff ratio	Dean of College Heads of Departments HR Department Financial Department	Revised annually	New appointments of full-time and part-time faculty. Promotions.
	6. Promoting practical training opportunities for students	Dean of College Heads of Departments Vice-dean for Training & Community Services	Revised annually	Signing protocols with industrial bodies. Encouraging students to make use of available opportunities.
	7. Supporting extra-curricular activities for students	Heads of Departments Vice-dean for Training & Community Services Vice-dean for Student Affairs	Annually	Engineering Day. Exhibitions. Workshops. Participating in International Competitions. Cultural events. Sport events.
2. Preserve the commitment to international and local accreditations for the educational programs.	1. ABET Accreditation	Dean of College Heads of Departments Head of Quality Assurance Unit	Once every four years / termly follow-up	Examining Board Visits. External Examiner reports. Self-study reports. Student work / Assessment samples
	2. RIBA Accreditation	Dean of College Head of Arch. Department Head of Quality Assurance Unit	Once every five years / termly follow-up	Examining Board Visits. External Examiner reports. Self-study reports. Student work / Assessment samples.
	3. NAQAAE	Dean of College	Once every five	Examining Board Visits.

	Accreditation	Heads of Departments Head of Quality Assurance Unit	years / annual follow-up	External Examiner reports. Self-study reports. Student work / Assessment samples.
	4. IET Accreditation	Dean of College Heads of Departments Head of Quality Assurance Unit	Once every four years / termly follow-up	Examining Board Visits. External Examiner reports. Self-study reports. Student work / Assessment samples.
	5. SCU equivalence of undergraduate programs	Dean of College Heads of Departments Head of Quality Assurance Unit	Once every 1-3 years / termly follow-up	Examining Board Visits. Updating status reports. Quality Assurance documents. Student work / Assessment samples.
	6. SCU equivalence of post graduate programs	Dean of College Heads of Departments Head of Quality Assurance Unit	Once every 1-3 years / termly follow-up	Examining Board Visits. Updating status report. Quality Assurance documents. Student work / Assessment samples.
3. Recruit and retain the best faculty and staff	1. Developing recruitment strategies that attract remarkable faculty.	Dean Vice-dean for Educational Affairs HR Department Heads of Departments	Annually	Constant development of recruitment criteria for selective appointment. Recruiting new full-time faculty every year. Assignment of more GTA's every year. Making use of internal

				academic promotions. Developing flexible systems for part-time recruitment.
	2. Endorsing attractive financial packages to keep up with the rates of competitor institutions	Dean Vice-dean for post-graduate Studies HR department Financial Department	Biannually	Applying an annual increase of salaries. Improving the monthly packages for senior faculty. Permitting longer over-time hours. Increasing the pay per hour for full- and part-time faculty. M.Sc. Scholarships. Ph.D. Scholarships.
	3. Encouraging faculty motivation and mobility	Dean of College Dean of Education Financial Department	Annually	Develop promotion system. Propagate knowledge about it. Set financial rewards.
	4. Encouraging outstanding performance in teaching, research and administration	Dean of College Vice-dean for Postgraduate Studies and Research Heads of Departments Administrative Head	Biannually	Best teaching performance award per department. Distinguished research awards. Best administrative performance award.
4. Enhance Faculty teaching potentials	1. Encouraging collaboration with corporate partners	Dean of College Vice-dean for Training & Community Services Heads of Departments	Annually	MOU's Joint supervision of graduation projects and research. Consultancy and training for

				young faculty.
	2. Supporting continued development programs / courses	Dean of College Dean of Education Heads of Departments	Annually	Internal and external training courses, seminars and workshops.
	3. Promoting academic exchange programs	Dean of College Vice-dean for Training & Community Services Heads of Departments	Annually	MOU's. Inviting visiting professors. Supporting academic missions.
	4. Allocating funds for innovative teaching methods / facilities	Dean of College Heads of Departments Financial Department	Annually	Laboratories. Teaching aids.
	5. Exchanging expertise at local and national levels	Dean of College Vice-dean for Educational Affairs Heads of Departments	Biannually	Internal seminars. Mentoring via co-teaching. External reviewers. Course Coordinators.
5. Adopt an effective academic and administrative structure	1. Identifying job description with clear hierarchy of authorities and responsibilities	Dean of College Quality Assurance Unit HR Department Heads of Departments	Annually	Meetings to propagate knowledge about the College organizational structure. Officially Informing individuals of their job description, authorities and chain of responsibilities
	2. Maintaining balance between research, teaching and administrative tasks assigned to faculty	Dean of College Heads of Departments	Annually	Recruiting more administrative staff. Decreasing teaching hours in favor of research activities.
	3. Expanding training	Dean of College	Annually	Developing an annual

	and career development programs for administrative and technical staff	HR Department		program for training Monitoring the progress of the yearly plan
	4. Reducing bureaucracy, paper work and use shorter links with different college personnel	Dean of College Heads of Departments	Annually	Promoting decentralization in decision making Developing Intranet facility to make information available to concerned parties
	5. Strengthening the role of the College and Departmental councils	Dean of College Heads of Departments	Monthly	Maintaining regular College and Department meetings monthly. Inviting junior faculty members to take part in both councils. Inviting advisory board members to take part in council decisions. Inviting student representatives to take part in meetings.
6. Develop challenging up-to-date curricula	1. Providing sufficient space for practical applications	Heads of Departments Course Coordinators	Annually	Involvement of case study applications and analyses in taught courses. Encouraging project-based / problem-based curricula. Involvement of industrial

				<p>partners in projects supervision and assessment. Supporting site-visits and field trips.</p> <p>Reconciling theoretical explanations with practical applications in courses.</p> <p>Promoting hands-on experimentation in course applications.</p>
	2. Promoting diversity by extending the spectrum of offered elective courses	Heads of Departments Course Coordinators	Annually	Offering diverse elective courses in line with particular sub-specialties.
	3. Addressing contemporary challenges and up-to-date discourses	Dean of College Vice-dean for Training & Community Services Heads of Departments Course Coordinators	Annually	<p>Regular review of course contents.</p> <p>Promoting faculty exposure via conferences, sabbaticals, and workshops.</p> <p>Extending encounter with local industrial partners.</p>
	4. Tackling local problems in the light of global advancements and recent findings	Vice-dean for Training & Community Services Heads of Departments Course Coordinators	Annually	<p>Promoting faculty exposure via conferences, sabbaticals, and workshops.</p> <p>Extending encounter with local industrial partners.</p>
	5. Improving student skills in: - design and creative	Vice-dean for Training & Community Services Vice-dean for Student	Annually	<p>Regular review of course contents.</p> <p>Interactive teaching methods</p>

	<ul style="list-style-type: none"> - problem-solving - self-learning and research - communication - teamwork 	Affairs Heads of Departments Course Coordinators		Office hours Encouraging extra-curricular activities with hands-on experience. Supporting participation in national and international competitions.
7. Adopt transparent assessment policies	1. Adopting transparent and clear grading criteria	Heads of Departments Course Coordinators	Biannually	Stating grading-criteria clearly in all assignments and examination papers. Informing students with their achievements on regular bases. Approving all course results by Course coordinators and Heads of Departments. Regular review by external examiner(s). Adopting an efficient student-appeal system.
	2. Maintaining a balanced reflection of intended learning outcomes	Heads of Departments Course Coordinators	Biannually	Identifying the relationship between grading policies and intended learning outcomes in course file summaries handed to students at the beginning of the term. Stating intended learning outcomes clearly next to

				every question in all assignments and examination papers.
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5.2 Strategic Goal 2: Developing innovative academic programs

Under this strategic goal, the college would abide with the following objectives:

1. Gaining information about new specialization
2. Undertaking appropriate Implementation mechanisms
3. Publicizing new programs at local and regional levels

These three objectives would be realized in the light of the forthcoming policies

5.2.1 Objective (1): Gaining information about new specialization

Policies

1. Facilitating diverse channels to learn about worldwide developments and new sub-specialties.

5.2.2 Objective (2): Undertaking appropriate Implementation mechanisms

Policies

1. Adopting executive plans to launch innovative programs for undergraduate studies, diplomas and masters.

5.2.3 Objective (3): Publicizing new programs at local and regional levels

Policies

1. Undertaking variable marketing channels to communicate information about new programs to the public.

Goal 2: Developing innovative academic programs				
Objectives	Policies	Responsibility	Frequency	Metric
1. Gaining information about new specialization	1. Facilitating diverse channels to learn about worldwide developments and new sub-specialties	Dean of College Vice-dean for Educational Affairs Heads of Departments	Annually	Conferences Exchange programs Questionnaires
2. Undertaking appropriate Implementation mechanisms	1. Adopting executive plans to launch innovative programs for undergraduate studies, diplomas and masters	Dean of College Vice-dean for Educational Affairs Vice-dean for post-graduate Studies Heads of Departments Head of Quality Assurance Unit	Annually	College Board Approval Departmental Approval Assigning specialized committees for logistics and curriculum preparations Applying for local licensing Applying for local and international accreditation
3. Publicizing new programs at local and regional levels	1. Undertaking variable marketing channels to communicate information about new programs to the public	Dean of College Heads of Departments Marketing Department Department of Marketing and Public Relations Documentation and News Propagation Unit	Biannually [after licensing]	Orientation sessions [3-4 sessions every term]. Newspapers [3-4 adverts per term]. Web-sites [Regular updates to web-site + 2-3 popular web-sites to advertise programs]. School visits. Brochures [printing 10,000 brochures annually].

5.3 Strategic Goal 3: Promoting academic research

In order for the College to pursue this strategic goal, the following two objectives are formulated to guide all related actions and decisions:

1. Creating appropriate research environment
2. Promoting rewarding research incentive

These two objectives can be achieved with reference to the following policies

5.3.1 Objective (1): Creating appropriate research environment

Policies

1. Establishing independent specialized research units.
2. Adopting appropriate time scheduling for researching faculty.
3. Provision of up-to-date research facilities.
4. Promoting inter-disciplinary and collaborative research.
5. Organizing conferences and workshops.
6. Working closely with industrial partners.

5.3.2 Objective (2): Promoting rewarding research incentive.

Policies

1. Promoting local, regional and international fund-raising campaigns.
2. Providing financial support for faculty research.
3. Awarding research prizes for distinctive and ranked publications.

Goal 3: Promoting academic research				
Objectives	Policies	Responsibility	Frequency	Metric
1. Creating appropriate research environment	1. Establishing independent specialized research units	Dean of College Vice-dean for Post-graduate Studies and Research	Annually	Promoting the establishment of specialized research units in environmental studies, sustainable energy, information technology and others.
	2. Adopting appropriate time scheduling for researching faculty	Dean of College Heads of Departments	Annually	Decreasing teaching hours for researching faculty. Decreasing the administrative loads upon researching faculty. Providing enough time for the supervision of postgraduate students.
	3. Provision of up-to-date research facilities	Dean of College Heads of Departments	Annually	Establishing new research laboratories. Upgrading the College labs and equipment. Improving Internet services Providing office aids to support research documentation and publication.
	4. Promoting inter-disciplinary and collaborative research	Dean of College Vice-dean for Post-graduate Studies and Research	Annually	Developing MOU's with local and international institutions. Promoting joint research

				between different departments within the College.
	5. Organizing conferences and workshops	Dean of College Vice-dean for Training and Community Services	Annually	Organizing one yearly conference Organizing 2-3 workshops yearly
	6. Working closely with industrial partners	Dean of College Vice-dean for Training and Community Services	Annually	MOU's Joint supervision of graduation projects and research. Consultancy and training for young faculty. Inviting industrial experts to deliver lectures and seminars in the College.
2. Promoting rewarding research incentives	1. Promoting local, regional and international fund-raising campaigns	Dean of College Vice-dean for Training and Community Services Heads of Departments	Annually	MOU's. International AID bodies. Local research Institutions.
	2. Providing financial support for faculty research	Dean of College Vice-dean for Post-graduate Studies and Research Heads of Departments	Annually	M.Sc. scholarships Ph.D. scholarships Funding participation in international conferences.
	3. Awarding research prizes for distinctive and ranked publications	Dean of College Vice-dean for Post-graduate Studies and Research	Annually	Continue awarding research prizes in relation to journals' impact factor

5.4 Strategic Goal 4: Strengthening bonds with the community and the industry

The objectives hereunder are formulated to set applicable procedures for the pursuit of this strategic goal:

1. Maintaining effective links with the local business community
2. Developing cooperation with governmental institutions
3. Serving the local community and the environment

The forthcoming section will introduce in details the policies to be undertaken towards the pursuit of this goal

5.4.1 Objective (1): Maintaining effective links with the local business community

Policies

1. Encouraging collaborative research projects and consultancies.
2. Involving the industry in College development and decision-making.
3. Emphasizing the role of industry as a continuum to academia.
4. Providing financial support to research activities.
5. Fostering communication with the alumni

5.4.2 Objective (2): Developing cooperation with governmental institutions

Policies

1. Promoting collaborative research projects and consultancies.
2. Facilitating training and development.

5.4.3 Objective (3): Serving the local community and the environment

Policies

1. Funding community facilities.
2. Organizing social and cultural activities.
3. Undertaking social service campaigns.

Goal 4: Strengthening bonds with the community and the industry				
Objectives	Policies	Responsibility	Frequency	Metric
1. Maintaining effective links with the local business community	1. Encouraging collaborative research projects and consultancies	Dean of College Vice-dean for Training and Community Services Heads of Departments	Annually	Industry service complex. Supervising and examining graduation projects. Supervising and examining post-graduate studies.
	2. Involving the industry in College development and decision-making	Dean of College Vice-dean for Training and Community Services Heads of Departments	Biannually	Industrial advisory board.
	3. Emphasizing the role of industry as a continuum to academia	Dean of College Vice-dean for Training and Community Services Heads of Departments	Annually	Part-time faculty. Summer training schemes. Yearly job fair
	4. Providing financial support to research activities	Dean of College Vice-dean for Training and Community Services Heads of Departments	Annually	Providing research grants for promising students, with reference to current practice problems Fund-raising / contributions to College facilities Funding students' overseas academic missions
	5. Fostering communication with the alumni	Vice-dean for Training and Community Services Heads of Departments Alumni Association Documentation and News Propagation Unit	Annually	Setting an annual re-union Publishing and sending periodical news-letters Promoting social activities for alumni Propagating for the services

				provided by the Alumni Association
2. Developing cooperation with governmental institutions	1. Promoting collaborative research projects and consultancies	Dean of College Vice-dean for Training and Community Services Heads of Departments	Annually	Industry service complex. Supervising and examining graduation projects. Supervising and examining post-graduate studies. Part-time faculty.
	2. Facilitating training and development	Dean of College Vice-dean for Training and Community Services Heads of Departments	Annually	Vitalizing summer training opportunities in governmental enterprises. Joint workshops.
3. Serving the local community and the environment	1. Funding community facilities	Dean of College Vice-dean for Training and Community Services Heads of Departments	Annually	Local parks development and maintenance Building local police station Subsidizing tuition fees for public-servant parents Subsidizing tuition fees for orphan candidates
	2. Organizing social and cultural activities	Dean of College Vice-dean for Training and Community Services Vice-dean for Student Affairs Heads of Departments	Annually	Organizing cultural events to the public Inviting public figures to deliver communal lectures
	3. Undertaking social service campaigns	Dean of College Vice-dean for Training	Annually	Illiteracy eradication courses Charity seasonal donations

		and Community Services Vice-dean for Student Affairs		
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5.5 Strategic Goal 5: Extending academic cooperation with local, regional & international institutions

Under this strategic goal, the college would abide with the following objectives:

1. Gaining recognition of local and international organizations and institutions
2. Developing exchange programs for faculty, students and research-work
3. Extending awareness about the College's international activities

These objectives can be taken to the level of implementation mechanisms as explained in the policies to follow

5.5.1 Objective (1): Gaining recognition of local and international organizations and institutions

Policies

1. Renewing and applying for international accreditation schemes.
2. Renewing and applying for local accreditation schemes.

5.5.2 Objective (2): Developing exchange programs for faculty, students and research-work

Policies

1. Vitalizing and developing MOU's and agreements with international universities.
2. Developing communication with international funding agencies in the field of academic exchange.

5.5.3 Objective (3): Extending awareness about the College's international activities

Policies

1. Establishing an independent unit for Documentation and News Propagation
2. Informing students about available opportunities.
3. Informing faculty about available opportunities.

Goal 5: Extending academic cooperation with local, regional & international institutions				
Objectives	Policies	Responsibility	Frequency	Metric
1. Gaining recognition of local and international organizations and institutions	1. Renewing and applying for international accreditation schemes	Dean of College Head of Quality Assurance Unit Heads of Departments	Biannually preparations / 4-5 years renewal	ABET RIBA IET
	2. Renewing and applying for local accreditation schemes	Dean of College Head of Quality Assurance Unit Heads of Departments	Biannually preparations / 1-5 years renewal	Supreme Council of Universities NAQAAE Engineering Syndicate
2. Developing exchange programs for faculty, students and research-work	1. Vitalizing and developing MOU's and agreements with international universities	Dean of College Vice-dean for Training and Community Services	Annually	Student exchange Student transfer Specialized summer schools Co-teaching courses Inviting / sending faculty members to deliver specialized lectures [physical / video-conference] Sabbatical leaves Exchanging examiners Funding joint research Joint supervision of post-graduate studies International student office Extending participation in international conferences, workshops and publications

	2. Developing communication with international funding agencies in the field of academic exchange	Dean of College Vice-dean for Training and Community Services	Annually	Providing opportunities for short-term undergraduate exchange Providing opportunities for postgraduate full/partial scholarships Providing opportunities for post-doctoral scholarships
3. Extending awareness about the College's international activities	1. Establishing an independent unit for documentation and news propagation	Dean of College Human Resources Department Financial Department Procurement Department	Once: Academic Year 2013/2014	Undertaking official procedure Appointing staff Providing furniture and equipment
	2. Informing students about available opportunities	Vice-dean for Training and Community Services Documentation and News Propagation Unit Heads of Departments	Termly	Seminars Brochures Web-site News-letters
	3. Informing faculty about available opportunities	Vice-dean for Training and Community Services Documentation and News Propagation Unit Heads of Departments	Termly	Seminars Brochures Web-site News-letters

5.6 Goal 6: Improving the job satisfaction for faculty and staff

With job satisfaction at the very heart of this goal, the following objectives, together with their subsequent implementation policies, can set the route towards its accomplishment at all involved levels.

1. Maintaining healthy communication channels
2. Promoting institutional belonging
3. Continuous development
4. Balanced lifestyle

As per the above inception, the policies of implementing these goals are represented within the following points.

5.6.1 Objective (1): Maintaining healthy communication channels

Policies

1. Encouraging effective top-down communication.
2. Promoting participatory bottom-up communication.
3. Setting healthy means for positive interaction amongst colleagues.

5.6.2 Objective (2): Promoting institutional belonging

Policies

1. Disseminating a constructive sense of purpose amongst all working personnel.
2. Communicating a sense of accomplishment for faculty and staff.
3. Providing satisfactory benefits and job security measures.
4. Maintaining equal opportunities.
5. Providing appropriate workspaces and facilities.

5.6.3 Objective (3): Continuous development

Policies

1. Promoting Faculty and staff development.
2. Facilitating opportunities for working with competent peers.
3. Catering for challenge and diversity.

5.6.4 Objective (4): Balanced lifestyle

Policies

1. Improving salary packages and pay improvement.
2. Rationalizing workload.

Goal 6: Improving the job satisfaction for faculty and staff				
Objectives	Policies	Responsibility	Frequency	Metric
1. Maintaining healthy communication channels	1. Encouraging effective top-down communication.	Dean of College Heads of Departments Faculty Affairs Committee Documentation and News Propagation Unit	Monthly / Termly	Adopting clear chain of hierarchy. Undertaking clear job description for everyone. Leadership practices should promote effective exchange of information. Providing channels for feedback and support.
	2. Promoting participatory bottom-up communication.	Dean of College Heads of Departments Faculty Affairs Committee	Monthly / Termly	Promoting decentralization in decision making. Minimizing bureaucracy and paperwork. Providing channels for feedback and support.
	3. Setting healthy means for positive interaction amongst colleagues.	Dean of College Heads of Departments Department of Marketing and Public Relations	Monthly / Termly	Encouraging positive peer relationships. Supporting social activities as means for social interaction. Disseminating team spirit and group work.
2. Promoting institutional belonging	1. Disseminating a constructive sense of purpose amongst all	Dean of College Head of Quality Assurance Unit	Termly	Publicizing clear common objectives to the whole college community

	working personnel.	Documentation and News Propagation Unit		[meetings, banners, printed material]. Carrying out yearly questionnaires and announcing the findings. Holding periodical meetings.
	2. Communicating a sense of accomplishment for faculty and staff	Dean of College Heads of Departments Faculty Affairs Committee Documentation and News Propagation Unit	Termly	Announcing a fair and transparent reward system for distinctive performance. Propagating a mobilizing promotion system. Publicizing the college status and achievements via different media. Celebrating new developments in public arena.
	3. Providing satisfactory benefits and job security measures	Dean of College Financial Department Human Resources Department Head of Quality Assurance Unit	Termly	Life insurance policy. Health insurance scheme. Pensions system. Long-term contracts. Carrying out yearly questionnaires and taking proper corrective actions.
	4. Maintaining equal opportunities	Dean of College Heads of Departments Faculty Affairs Committee	Termly	Undertaking fair and transparent assessment measures. Committing to non-

				discriminating policies. Catering for handicapped rights.
	5. Providing appropriate workspaces and facilities	Dean of College Heads of Departments Procurement Department	Termly	Providing suitable workspace. Providing appropriate working facilities. Making more recreational facilities available. Providing sport facilities. Parking lots.
3. Continuous development	1. Promoting Faculty and staff development	Dean of College Vice-dean for Training and Community Services Vice-dean for Research and Post-graduate Studies Financial Department	Yearly / Termly	Developing a yearly training plan. Funding academic missions. Supporting research activities.
	2. Facilitating opportunities for working with competent peers	Dean of College Heads of Departments Faculty Affairs Committee	Termly	Maintaining challenging appointment criteria. Maintaining challenging promotion regulations.
	3. Catering for challenge and diversity	Dean of College Vice-dean for Educational Affairs Heads of Departments	Termly	Continuous development of all taught courses. Swapping taught courses throughout different terms/years. Gradually extending work responsibilities and variety.

4. Balanced lifestyle	1. Improving salary packages and pay improvement	Dean of College Heads of Departments Human Resources Department Financial Department	Termly	Annual increase in salaries. Exceptional raise with promotions. Financial rewards for outstanding performance. Yearly bonus. Improving allowance parallel with yearly inflation rates. Increasing academic mission subsidies Relating man-hour pay to academic status rather than lecture/tutorial Improving pay per extra time and part-time faculty
	2. Rationalizing workload	Dean of College Heads of Departments Human Resources Department Faculty Affairs Committee	Termly	Undertaking every possible act to guarantee fair task assignment. Providing sufficient workforce size [academic, administrative & technical]. Reducing working hours to allow for parallel activities.

APPENDIX (1): QUICK FACTS AND FIGURES

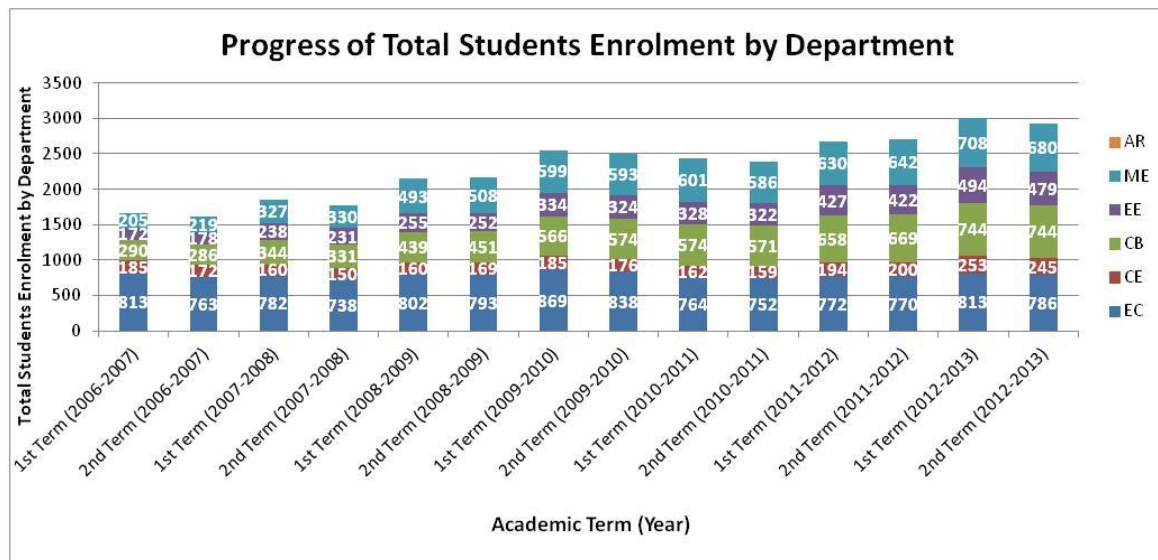


Fig. (1) Progress of Total Students Enrolment by Department.

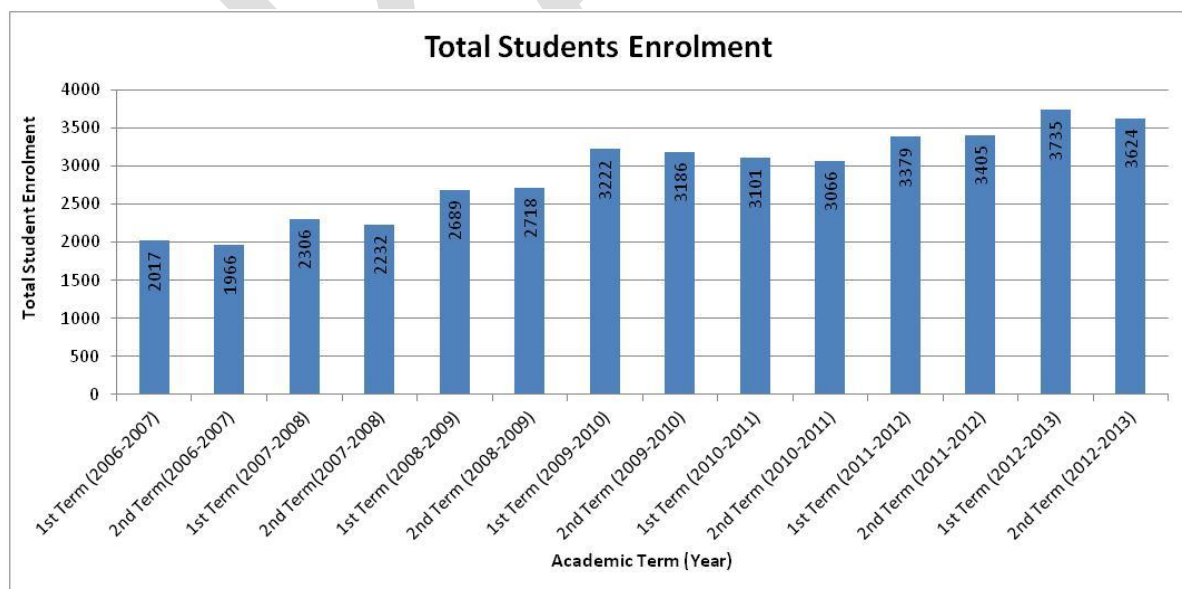


Fig. (2) Total Students Enrolment.

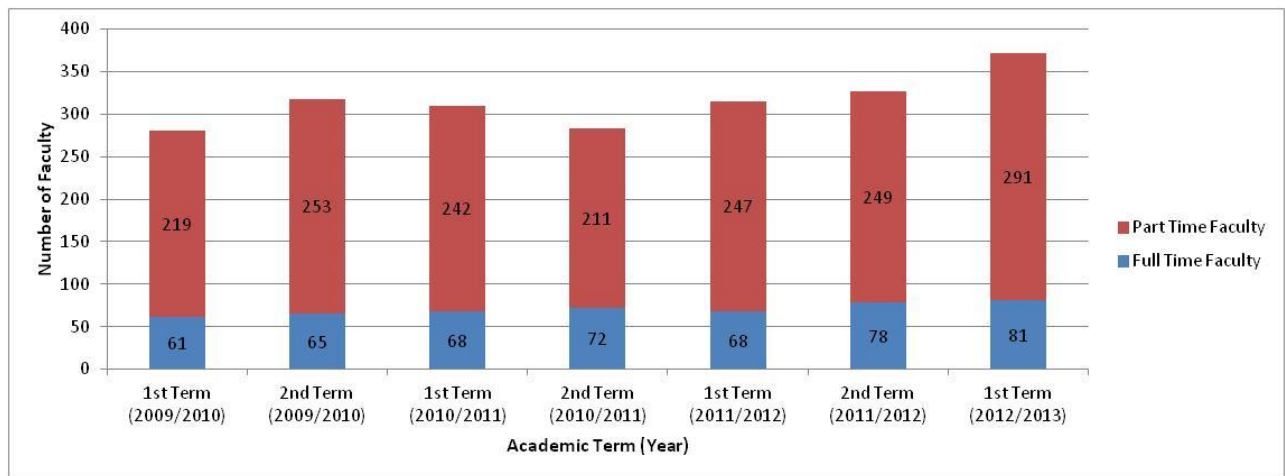


Fig. (3) Number of Full Time and Part Time Faculty.

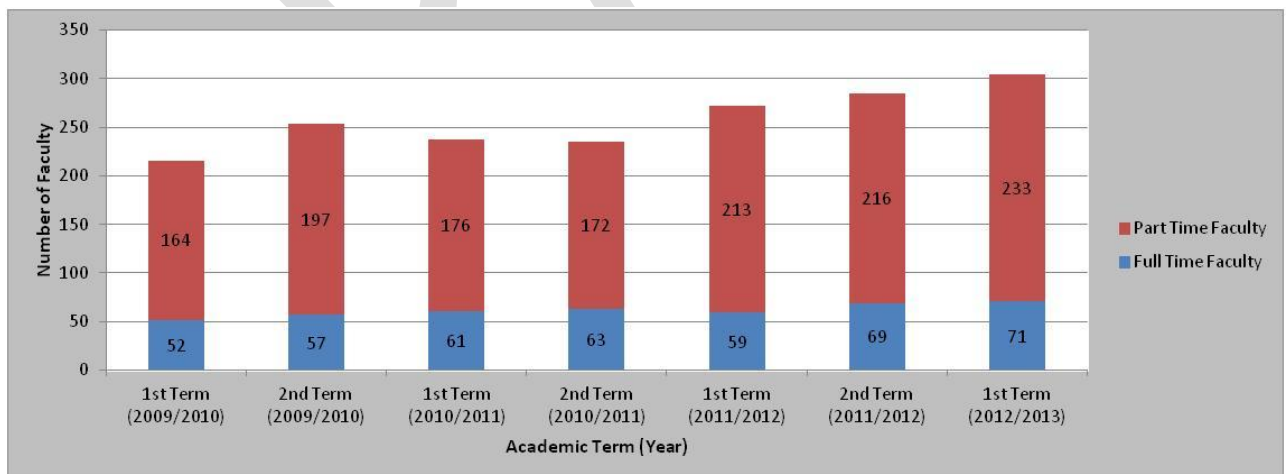


Fig. (4) Number of Full Time and Part Time Faculty.
Without AR

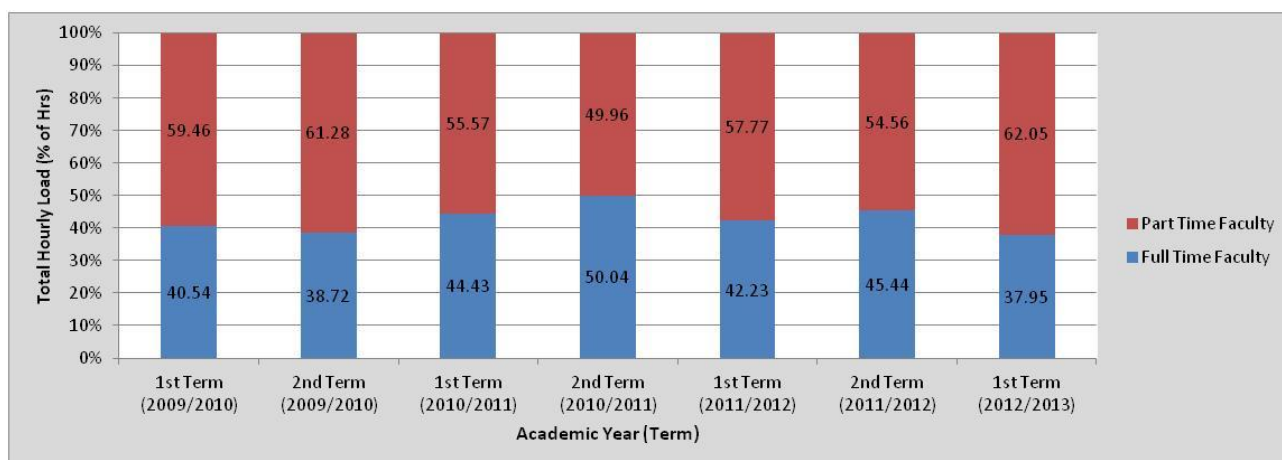


Fig.(5) Full Time and Part Time Faculty Teaching Load (% of Hours).
Without AR

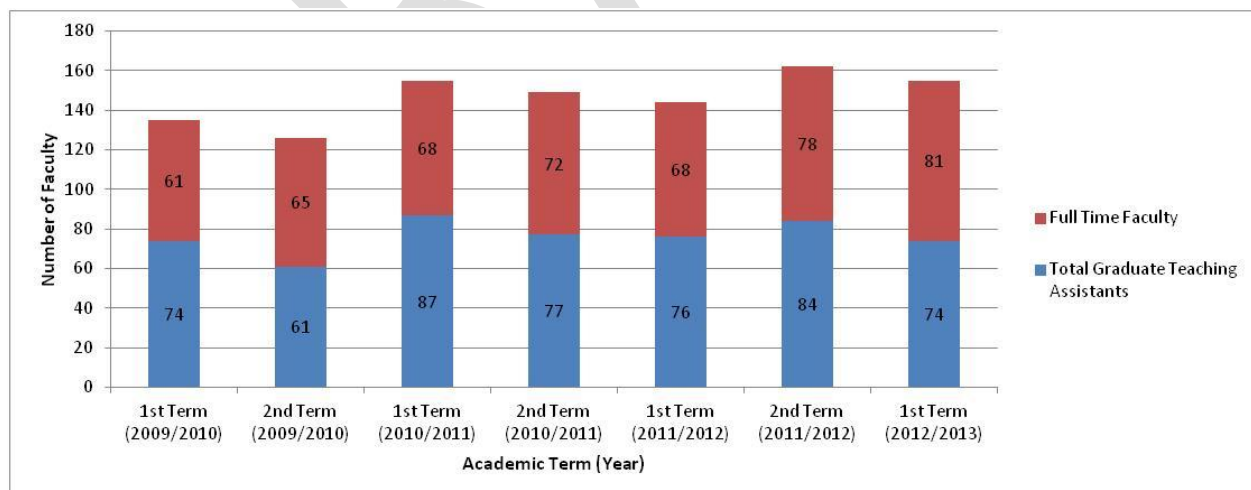


Fig. (6) Total Full Time Faculty and Teaching Assistants.

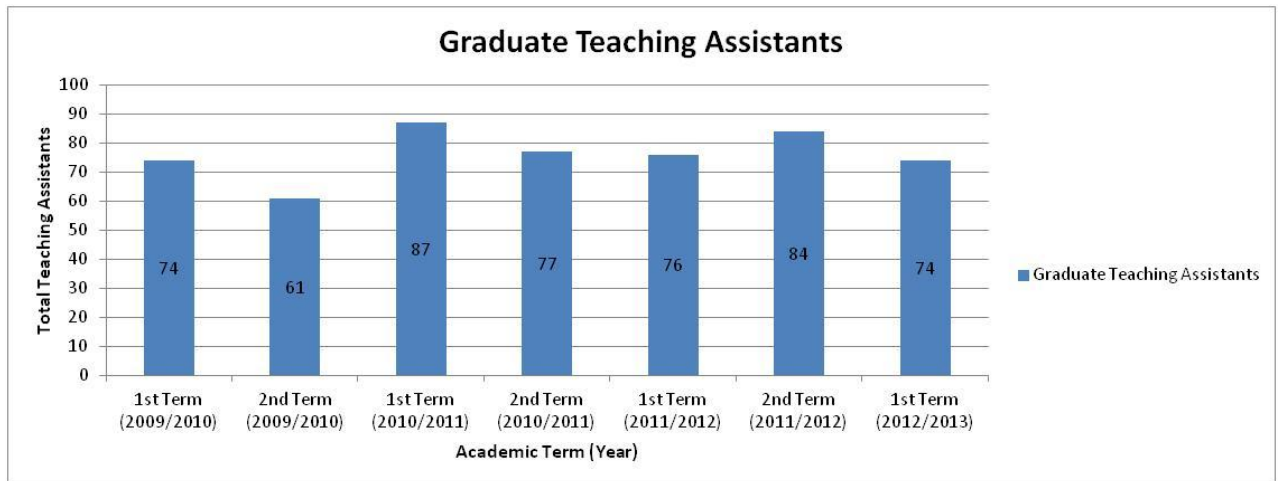


Fig. (7) Graduate Teaching Assistants.

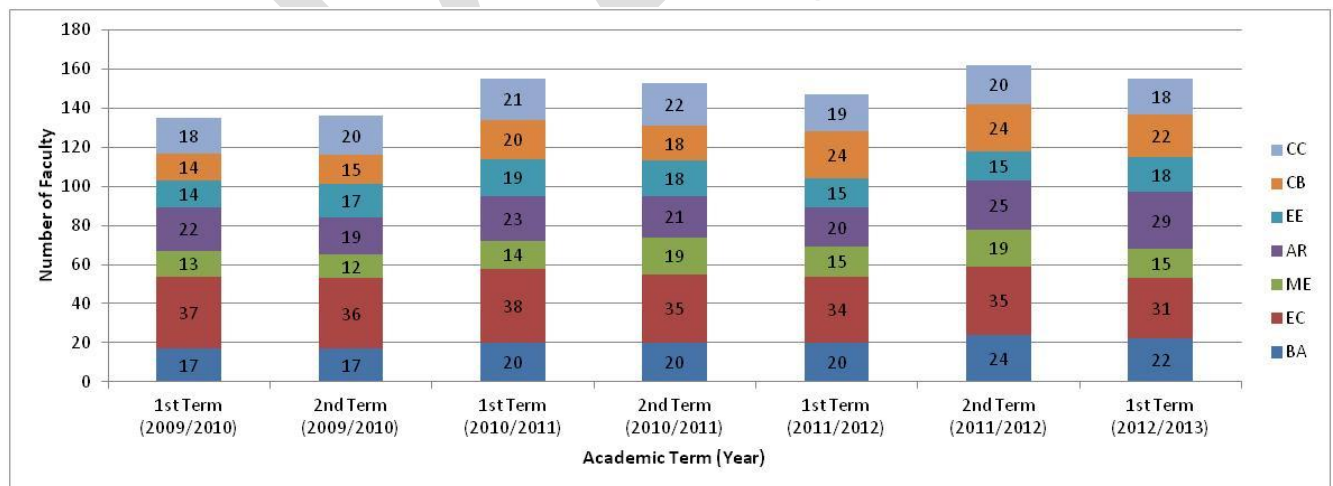


Fig. (8) Total Full Time Faculty and GTA's by Department.

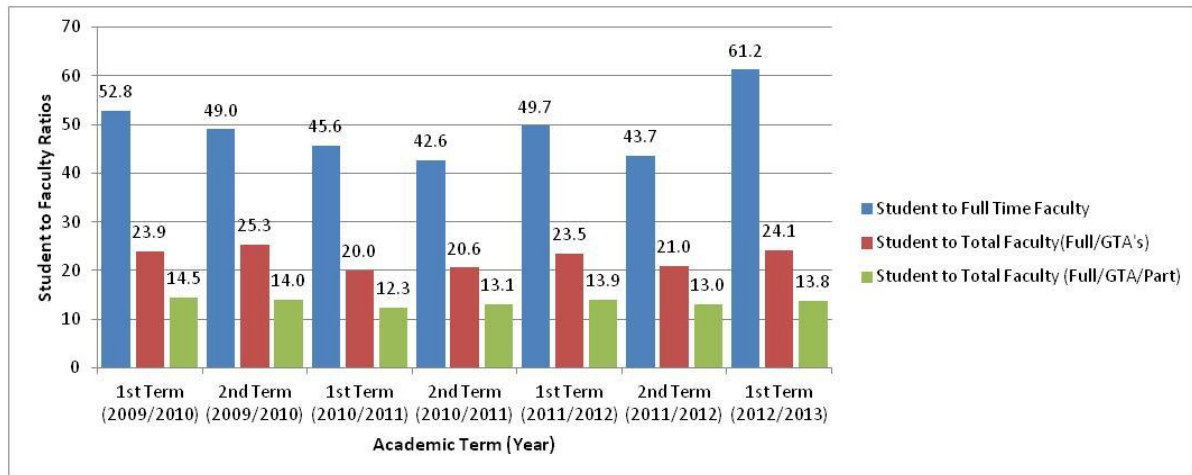


Fig. (9) Student to Faculty Ratio.

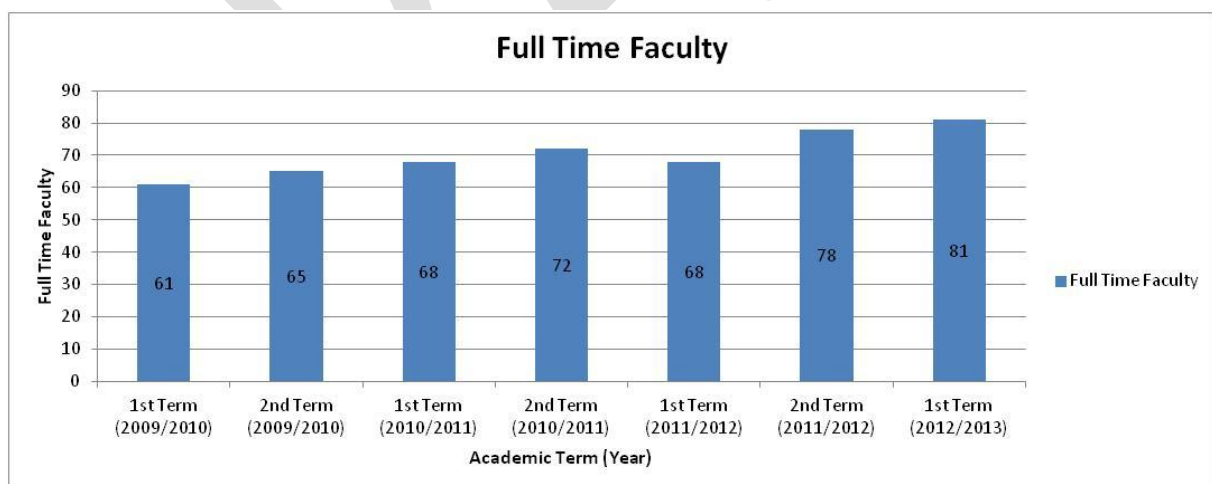


Fig. (10) Number of Full Time Faculty.

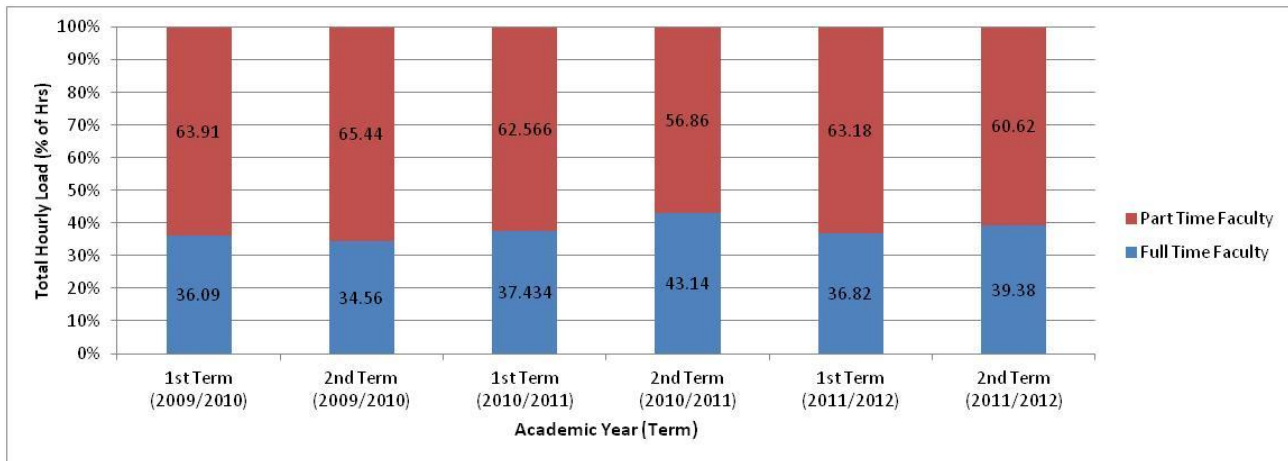


Fig. (11) Full Time and Part Time Faculty Teaching Load (% of Hours).

APPENDIX (2): STRATEGIC RESEARCH AREAS

In line with the College's vision to promote academic research, a comprehensive research plan was developed for the five years to come. This plan addresses the major research areas, in which the College possesses distinct potentials. Besides their positive academic value, these areas acquire further significance due to facilitating interaction amongst faculty of multiple disciplines, responding to genuine local demands and the involvement in contemporary research activities around the world. The list below outlines the major proposed disciplines and research areas.

Transportation Engineering

- Ports Design
- Infrastructure networks
- Service structures (bridges, tunnels, towers)
- Roads and highways
- Railways and airports

Construction Management

- Coastal zone management
- Risk management
- Project management
- Contracting and specification

Renewable Energy

- Solar energy for power generation
- Wave energy for power generation
- Power generation in remote isolated areas
- Solar thermal collectors' design and applications
- Solar water desalination
- Wind energy for power generation

Architecture, Planning and Urban Design

- Environmental design and sustainable architecture
- History and theories of architecture and urban design
- Human behavior in the built environment
- Informal settlements and housing studies
- Computer applications in architecture and urban design
- Landscape architecture
- Architectural conservation
- City and regional planning strategies and policies

Electrical Power Engineering

- Power quality improvement using AI techniques
- Power systems protection and operation
- Wind and solar energy resource management
- Voltage regulation on electrical transmission lines
- Flexible AC transmission systems (FACTS)
- Distributed generation
- Reliability of power systems
- High voltage engineering
- Smart grid

Electrical Machine Drives

- Harmonic distortion improvement for electrical drives
- Power electronics applications on special machines
- Electrical machine design
- Uninterruptible power supplies

Automation and Control

- Automated systems modeling, simulation and control
- Motion control
- Fault tolerance control
- Dynamic safety margins on process control

Computer Engineering

- Cloud computing and software engineering
- Data communication and network security
- Embedded systems, reconfigurable computing and computer architecture
- Intelligent systems, data mining and machine learning
- Bioinformatics
- Security and ethical hacking

Digital Signal Processing

- Computer vision
- Biomedical applications
- Pattern recognition
- Image and video processing

Digital and Mobile Communications

- Cognitive radio
- Optical communications
- Mobile communications
- Wireless communications

Microwave Technology

- Computational electro-magnetics
- Nano-analysis microwaves filter
- Electromagnetic scattering problems
- Smart antennas
- Micro-strip antennas

Automotive Engineering

- Automobile pollution control
- Hybrid car systems

Manufacturing Systems and Processes

- Rapid prototyping applications
- Product development systems
- Lean manufacturing systems

Modeling and Simulation

- Component based modeling of industrial systems
- Optimizing of industrial facilities design
- Meta-heuristic optimization
- Supply Chain Optimization
- Environmental simulation for architectural and urban spaces

Materials Engineering

- Materials for renewable energy applications
- Waste treatment of Industrial materials

Thermal Engineering

- Application of solar energy in Air-conditioning systems
- Natural gas refrigeration

Hydraulic Systems

- Reduction of friction losses in pipelines
- Pump performance investigation and optimization
- Optimization of hydraulic circuit valves' design
- Smart irrigation systems

Nanotechnology

- Material microstructure in Nano-engineering
- Nano-gold particles for medical treatment
- Single electron transistor
- Ballistic transistor
- Nano-applications in building materials

Engineering Mathematics

- Mathematical models of hydrodynamic, aerodynamics, fluid mechanics
- Mechanics of materials and elastic bodies
- Computational techniques and stochastic models
- Mathematical and statistical models in finance and economics
- Optimization of Engineering Systems
- Applied Mathematics, Physics, and Mechanics

Engineering Physics

- Radiology effect on environment
- Environmental indicators and climatic change

Applied Chemistry

- Corrosion engineering and protection
- Mass transfer and electrochemical reactors
- Large scale storage batteries
- Wastewater treatment

APPENDIX (3): FINANCING THE STRATEGY

In accordance with the extended financial commitments the College has to respond to, its funding resources need to be widely diversified. While the present main source of funding is the students' tuition fees, the College's obligations encompass the regular salaries, local and international accreditation expenses, maintenance of premises and laboratories, international conferences and research missions, Ph.D. scholarships and research grants, training for faculty and staff, exhibitions and extra-curricular activities, and many other items.

The early steps towards such diversification are already in action. The college is currently extending links with EU funding schemes like TEMPUS, MEDASTAR, and ---. Other communication channels are being established with Arab funding bodies like Qatar Foundation. The recently-established consultancy unit is expected to generate reasonable contribution to the College budget as well. Most recently, different departments are promoting a variety of specialized courses to the public to add to our resources.

However, despite the positive impact of those early steps, they still remain within a limited scale. Fundraising campaigns need to be widely propagated, and joint research projects need to be seriously promoted. Together with the aforementioned resources, this would pave the way for the College to progress at a more stable pace towards fulfilling its commitments and realizing its sought-after prosperity.

Major Areas of Expenditures

- | | |
|---------------------------------------|-----------------------------------|
| 1. Faculty recruitments | 9. Research and lab Facilities |
| 2. New buildings and capital projects | 10. Graduate students support |
| 3. ABET Accreditation Requirements | 11. Educational facilities |
| 4. NAQAAE | 12. Lab renovations & maintenance |
| 5. British institutes | 13. Undergraduate enrichments |
| 6. Invited Faculty | 14. Technical Staff |
| 7. Student Exchange | 15. Administrative staff |
| 8. Conferences and workshops | 16. Faculty retention |