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1. INTRODUCTION

The Faculty of Engineering at The British University in Egypt was established in 2005 by Presidential Decree as the result of inter-governmental agreement. The BUE is an Egyptian private university within the framework of Egyptian educational law and regulations providing a British style of education with an ethos consistent with UK quality assurance and academic standards. During the first six years the BUE was classified as a small university and thus its development and planning was conducted as a whole unit without detailed plans for underlying Faculties. Today the Faculty of Engineering has grown in size significantly over the past years and thus a detailed individual strategic plan is now being developed. This new Strategic Plan commits us to continuing the achievement of BUE’s aims, enhancing its planned institutionalisation. It identifies a number of key strategic areas and objectives and sets strategic and enabling targets that will ensure the continued success and further development of the Faculty. Implementation plans, developed within the framework of the approved strategy, will be regularly monitored with annual reports to ensure their effectiveness.

2. ACHIEVING OUR AMBITION

The FoE’s ambition is underpinned by a clear vision and mission, and the adoption of a number of core values.

VISION
To become the leading broad spectrum teaching and research faculty of engineering in the Middle East and Northern Africa (MENA) offering a British ethos of higher education with a range of UK partners and other global partners providing internationally recognised quality degrees that develop the knowledge and skills to help our students shape and lead their countries.

MISSION
To promote economic and technological development through the creation, and dissemination, of new knowledge via research and capable graduates, educated to the best UK academic standards, who are independent learners.

CORE VALUES
To promote our unique identity through:

- Mutual respect in a multicultural environment.
- Academic honesty and integrity and the maintenance of high academic standards.
- Continuous quality improvement.
- The development of the Faculty’s community.
- The full engagement and involvement of staff and students.
- Open and transparent leadership and management.
OPERATING PRINCIPLES
In accordance with the founding principles our operating principles are characterised by:

- Governance that ensures a dual Egyptian/British board and a credible system that ensures transparency and academic independence.
- Quality assurance mechanisms that ensure that standards are equal to those of the British validating institutions and that students have a comparable experience to those in the UK.
- State of the art programmes that underpin our graduates’ abilities to achieve their potential in a highly evolving and developing profession.
- Emphasizing student’s self learning in order to allow them the ability to excel and continuously develop their creative problem solving abilities.
- A research lead education with the majority of our staff engaged in state of the art relevant research that informs their teaching and curriculum development.

3. THE SHAPE AND SCALE OF THE FACULTY

The Faculty of Engineering student population in 2013 was just under 2000 in six Programmes: Architectural Engineering (20% of students), Chemical Engineering (7.5% of students), Civil Engineering (14% of students), Electrical Engineering (10.5% of students), Mechanical Engineering (24% of students) and Petroleum Engineering & Gas Technology (24% of students), in addition to the Preparatory Year. The annual intake in 2013 is over 500, which is the current full capacity of the Preparatory Year.

Four Master’s degree programmes were launched, for the first time, in 2011/12, two in Renewable Energy and two in Advanced Materials. The student population in these programmes is now 25 students over three intakes. New programmes have been submitted to the Supreme council of Private Universities for approval.

By the end of the planning period, the FoE should be a broad spectrum Faculty with 2,500 students in at least nine undergraduate Programmes, three new programmes are planned for this planning period, and an increasing number of postgraduate students and centres of excellence in research and community services. The campus developments currently in progress are expected to support the planned expansion, by the provision of appropriate buildings and facilities, including a new Library.

4. VALIDATION AND ACCREDITATION OF ENGINEERING PROGRAMMES

All engineering degree programmes are accredited by the Egyptian Supreme Council of Universities (SCU). Accreditation of programmes also will be sought from International Professional and Statutory Bodies, where appropriate.

As a strategic objective, all undergraduate engineering students shall be eligible, on entry to the Faculty, to study on a dual degree track and obtain a BUE degree and a UK degree awarded by a leading UK University, subject to satisfying the regulatory requirements for the award of each degree. We intend, therefore, to ensure the engagement with a new validating partner to replace
Loughborough University in validating Architectural Engineering, Civil Engineering, Electrical Engineering & Mechanical Engineering. In addition, we intend to continue our validation partnership with London South Bank University in validating both Chemical Engineering and Petroleum Engineering & gas Technology. We will also seek validation of our postgraduate taught programmes by leading UK universities where programme structures for UK degrees are aligned with those approved by the SCU.

Further UK validating partner universities will be required for the validation of newly introduced programmes, so that all our undergraduate students have the opportunity to achieve BUE and UK degrees.

5. RESEARCH

Faculty of Engineering academic staff are currently pursuing research in a broad range of areas across all departments. This is strongly encouraged and supported by the Faculty through several incentive and support mechanisms. There are key research areas aligned with our stated mission and the Faculty wishes to see critical mass established (or existing critical mass maintained) in these key areas. Therefore, these areas will be prioritised for support with the intention that they will grow as existing research centres or become new research centres.

Existing Research Centres:

- Centre for Theoretical Physics
- Centre for Advanced Materials
- Centre for Renewable Energy
- Centre for Sustainability and Future Studies

6. INTERNATIONALISATION

Internationalisation permeates all our activities and will be taken forward through achieving our strategic and enabling objectives. We will recruit more international staff and attract others to visit the BUE for short periods; establish more international partnerships that will include staff and student exchanges; seek to enrol more international students to diversify the student perspective and provide a broader student experience; and ensure that our curricula, research and facilities are international in standard.
7. STRATEGIC OBJECTIVES

The Faculty of Engineering has identified strategic objectives and specified targets in three key areas:

- Teaching & Learning
- Research
- Community Services and Enterprise
7.1. Teaching & Learning

**Strategic Objective**

To provide a high-quality British-style research-led learning experience which attracts students of outstanding potential and equips them with the capacity to undertake higher education and research, and the transferable skills and knowledge required by employers or to become the creators of new ventures.

Enhancing the quality of the student experience is a primary goal of the Faculty of Engineering at BUE that will help raise our profile as a Faculty of high quality and standards. There are several facets to achieving this status: attracting the highest quality students; attracting a preponderance of research – active academic staff capable of delivering UK higher education in accord with the British ethos and standards; developing effective, communicative and innovative teaching; providing a learning environment (academic, pastoral and social) that stimulates our students to become independent learners and to realise their potential, and which encourages research and academic development.

To achieve the above, we aim to:

- Raise our intake standard through targeted marketing activities, including internationally, and gradually raising our entry standards;
- Increase year-on-year the number of research-active staff with UK qualifications, or equivalent, and teaching experience;
- Develop and reward high quality teaching that is effective, communicative and innovative;
- Develop effective learner support resources appropriate to the needs of students, staff and relevant to the programs of study;
- Promote teaching and learning in research rich environment;
- Develop diversified active modes of teaching and learning;
- Focus on quality enhancement in teaching and learning as judged by the relevant internal and external performance indicators;
- Equip students with appropriate skills for their working lives after graduation.
Strategic Targets

To provide a high-quality British-style research-led learning experience which attracts students of outstanding potential and equips them with the capacity to undertake higher education and research, and the transferable skills and knowledge required by employers or to become the creators of new ventures, we will:

- Increase the quality and standard of our intake by continually raising our general entry standard in the high school leaving certificate (or equivalent);
- Strengthen existing and develop new well designed and well delivered undergraduate programmes;
- Strengthen the efforts to attract and educate a diverse body of the very best students;
- Strengthen the impact of international opportunities and educational experiences for students;
- Strengthen and increase the capacity of graduate and professional programs to recruit and educate a diverse body of the very best students;
- Strengthen support for and recognition of important multidisciplinary areas;
- Encourage staff to devote a reasonable proportion of their time to interact with their professions;
- Encourage the development of international collaborations and exchanges, in the context of personal development of teaching and research;
- Provide accredited training programs for staff;
- Recruit and hire staff members in the different disciplines;
- Ensure that all staff is provided with appropriate opportunities for their professional development, and that teaching and learning roles are appropriately managed and recognised in FoE review procedures;
- Develop and approve criteria for measuring and rewarding the performance of staff who teach;
- Establish well-understood methods or metrics of assessing the quality of the research, teaching, and public engagement, appropriate to the discipline or field;
- Provide high quality and appropriate learning technologies and to support staff in the effective use and their development;
- Develop library collections in printed and electronic form to meet the needs of learning;
- Provide appropriate spaces and resources for interactive and multimedia group learning;
- Provide the appropriate learning technologies in all teaching and learning settings from large lecture halls to the small group teaching;
- Provide students with direct experience of leading edge research in their discipline or field, and to develop their research and technical skills;
- Promote teaching and learning in a supportive yet challenging environment enriched by original scholarship and research;
- Achieve a minimum of 85% staff and student satisfaction in teaching and learning;
• Explore means to enhance the digital environment within the organisation, specifically with regards to student-facing infrastructure, in collaboration with web services;
• Continue to develop additional e-learning tools that meet both staff and student needs, building upon new technological and pedagogical opportunities;
• Seek innovative ways to use e-learning in the support of assessment and feedback;
• Exploit the potential of information and communications technology (ICT) to facilitate flexible approaches for teaching, high quality learning and assessment, both on and off campus;
• Ensure access to quality digital library resources as far as possible on the same basis as on-campus resources;

• Review quality assurance procedures in relation to approval of academic programmes;
• Promoting and supporting an integrated approach to quality enhancement initiatives across the institution;
• Ensure that robust systems are in place to assure and enhance the quality of all teaching and learning;
• Achieve successful institutional accreditation (NAQAAE);

• Encourage curriculum innovations that are designed to increase professionalism and the employability of students and promote civic responsibilities within students;
• Widen and strengthen links with industry and local employers to meet local and regional skills needs;
• Encourage students, through the process of personal development planning (PDP), to integrate academic learning with life and work experiences, enhancing their employability;
• Continuing to work closely with the BUE Careers Service so as to provide opportunities for students to gain employment.
7.2. Research

**Strategic Objective**

To establish the Faculty of Engineering at BUE as a leading engineering research hub in Egypt and the MENA region.

The Faculty of Engineering at BUE is aiming to position itself, among the academic institutions in Africa and the Middle East, as a research-led faculty where teaching is informed by the research activities of its academic staff. The Faculty promotes applied research as a necessary and vital part of its role within both academic and wider communities.

The Faculty of Engineering conducts broad-based, internationally competitive research that is relevant to the technological development of Egypt and the MENA region. It is building a strong academic base for interacting with industrial and local communities for research-based problem solving, education, knowledge transfer and commercialisation. It is establishing up-to-date central research facilities and infrastructure to support high quality national and international research teams.

The Faculty of Engineering at BUE aims to be recognised internationally as providing centres of excellence in a select set of research themes which fit within the strategic objectives of Egypt and the MENA region. It encourages the identification of areas of research strengths with the intention of developing further centres of excellence on which to focus its strategic support for research.

To achieve the above, we aim to:

- Attract, develop and support research active staff;
- Grow the number of research centres;
- Develop research partnerships with quality research-led institutions and research establishments;
- Attract leading academics to conferences and workshops;
- Attract significant research funds from external sources;
- Attract UK and internationally leading figures for externally funded collaborative research activities;
- Encourage academic staff to perform against recognised international metrics;
- Benchmark research performance;
- Obtain research degree awarding powers;
- Continue to support and expand the part-time Ph.D. scheme for the Faculty’s Teaching Assistants with our UK partners.
**Strategic Targets**

To establish the Faculty of Engineering as a leading research institution in Egypt and the MENA region through the provision of high quality research, we will:

- Establish at least one research centre.
- Establish research partnerships with academic institutions for collaborative research on agreed projects of mutual interest;
- Host and organize international conferences;
- Host and organize national workshops;
- Attract research funds from external sources;
- Attract internationally leading figures across a range of subject areas for externally funded collaborative research activities;
- Support research active staff by allowing paid leaves, during the summer, to engage in collaborative research projects abroad;
- Establish guidelines for sponsoring publications in high-calibre journals;
- Activate available workload flexible schemes to allow research activities for staff, when feasible;
- Develop and implement a benchmarking mechanism for evaluating research performance;
- Support our TAs to complete their PhDs with UK partner universities under the current part-time scheme;
- Encourage our Teaching Assistants to undertake research degrees abroad and return to the BUE;
- Market the Faculties research activities through a range of electronic media;
- Employ the Industrial Faculty Liaison Committee in engaging the faculty’s research capacity in research-based problem solving for partner industries;
- Propose PhD programmes in active research areas, as soon as feasible.
7.3. Community Services & Enterprise

**Strategic Objective**

To be an focal point of knowledge, solutions, facilities and consulting services to the engineering industry and the community across a broad subject range, offering high quality expertise to stimulate and support demand for innovative solutions, knowledge transfer and collaboration in support of economic development.

The Faculty of Engineering has recently named an Associate Dean for Community Services which reflects its commitment to provide a range of interactive services to the industry and the community at large. The Faculty is aiming at launching multifaceted professional dialogue with potential industrial partners which would engage both sides in a fruitful collaborative scheme. In addition, the Faculty is aiming at identifying a range of services that could be offered to the community in light of its current expertise.

Within this broad strategy, the Faculty of Engineering at BUE will develop a specialism in working with new and established SMEs (small and medium size enterprises) using the expertise of both the students and the staff by:

- Promoting enterprise (i.e. the ability to innovate, recognise and create opportunities, work in a team, take risks and respond to challenges);
- Assisting new and existing entrepreneurs to launch and grow their own ventures, by providing the necessary technical support;
- Working with stakeholders in Egypt, often with reference to curriculum and programme development, to advance opportunities for students and graduates, fund professorships and sponsor the upgrade of current facilities, etc.

To achieve the above, we aim to:

- Open channels with Industrial Corporations to offer expertise to stimulate and support demand for innovative solutions and knowledge transfer;
- Establish grounds for successful governmental and industrial collaborations and establish multiple avenues for collaboration;
- Promote our strong technical skills to attract inward investments.
Strategic Targets

To be an focal point of knowledge, solutions, facilities and consulting services to the engineering industry and the community across a broad subject range, offering high quality expertise to stimulate and support demand for innovative solutions, knowledge transfer and collaboration in support of economic development, we will:

- Hold monthly one day seminars each year;
- Engage a range of industrial advisors as part of the Faculty Industrial Liaison Committee;
- Promote and develop mutual collaboration schemes that engage relevant industrial partners with the academic community within the Faculty;
- Identify potential areas of expertise in order to develop and propose training workshop series for industrial partners;
- Explore and identify potential internship opportunities to help our students the chance to experience real life practical situations as part of their professional training;
- Undertake consultations with commercial, governmental and industrial organisations in Cairo and beyond each year;
- Establish a platform for engaging the Faculty’s research community in analyzing and solving industrial relevant problems.
- Arrange national and international competitions in a range of engineering specialties to expose our students to challenging competitive situations;
- Solicit industrial advisors’ recommendations regarding current and new Engineering programmes;
8. ENABLING OBJECTIVES

Delivering and sustaining our academic ambition and strategic objectives will be dependent on the provision of an effective and efficient supporting infrastructure that relates to several key areas:

- To our human resource capital, including staff management, development, progression and reward;
- To our governance, leadership and management structures, including sound financial planning and securing the requisite resources to ensure sustainability;
- To our physical estate, by providing a high quality learning and research environment that supports the student and academic experiences;
- To our internal and external relations, including our marketing, public relations and communication strategies;
- To our internationalisation strategy, by expanding our range of UK and other global partnerships.
Enabling Objective

To ensure the necessary structures and mechanisms are in place to support our academic ambition and the successful delivery of our strategic objectives.

To achieve the required infrastructure, we aim to:

- Strengthen and embed Governance and Leadership across the Faculty;
- Increase our sources of revenue, including sponsorship of buildings and specialized laboratories;
- Ensure that our marketing, public relations and communications plans are targeted to meet our developing activities and to raising the profile and reputation of the Faculty of Engineering at BUE;
- Support a rolling programme of maintaining and upgrading, where necessary, classrooms and laboratories, and implementing a replacement programme for essential equipment, including computers;
- Develop student and staff exchange programmes with a number of international partners;
- Strengthen and develop our data collection and analysis mechanisms, to inform planning and decision making.

Enabling Targets:

To ensure the necessary structures and mechanisms are in place to support our academic ambition and the successful delivery of our strategic objectives, we will:

- Seek to provide new dedicated buildings for the Faculty by 2015 to support our potential new programmes and relevant lab facilities;
- Establish independent income streams from research and industrial engagement;
- Seek sponsorship for Faculty buildings and laboratories;
- Offer an annual staff development programme, aligned with the requirements of staff and the BUE;
- Keep our staff attendance policy under regular review, to ensure that research active staff have dedicated time for research;
- Reduce the administrative burden on academic staff by defining clear requirements and providing appropriate administrative support;
- Continue to improve the quality and diversity of our student intake, by the selective targeting of schools and identification of new markets;
- Establish partnerships that support the academic development of the BUE.