



جامعة الإمام عبد الرحمن بن فيصل  
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY  
كلية الهندسة College of Engineering

# STRATEGIC PLAN

## 2018 - 2022

### College of Engineering

1439 - 2017



# Strategic Plan College of Engineering

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### DEAN'S MESSAGE



The College of Engineering at Imam Abdulrahman bin Faisal University is characterized by its vision to offer unique degree programs not available anywhere else in the Kingdom of Saudi Arabia (KSA) or the Gulf countries, meeting the constantly changing needs of the marketplace. The College currently offers non-traditional engineering degrees in Construction Engineering, Environmental Engineering, Energy Engineering, Transportation and Traffic Engineering and Biomedical (available for girls). Other degree programs such as: Infrastructure Engineering, Structural, Maritime Engineering Security and Safety Engineering are currently in the planning stages.

Since its establishment in 1429/1430 H, the College has started with construction and environmental engineering programs addressing the current development in the Kingdom and that it is expected in the future. Construction engineering specialization provides engineers who are able to manage and supervise construction projects of all types in design and construction stages, both in design offices and in construction sites. While the environmental engineering specialization is concerned with the negative effects of industry and construction on the environment, and trials to avoid or reduce them so that projects take into account environmental controls according to sustainability criteria.

The specialization of biomedical engineering for female students was added in the academic year 1433 / 1432H. This is to prepare and qualify female engineers to be able to deal with design and improvement of equipment, devices and machines available in hospitals, in the hope that this specialization will be highly welcomed by the medical sectors in the Kingdom and abroad.

In the year 1435/1436, the first batch of students in the field of transportation and traffic engineering came from the need to control traffic problems such as traffic congestion, environmental pollution and poor traffic safety on road networks where traffic accidents are a phenomenon that affects all sectors of society and causes humanitarian suffering with its impact on individuals, loss of life and property.

In order to achieve the vision of the Kingdom of Saudi Arabia (Vision 2030), which aims to increase energy production in order to achieve growth and prosperity for industry and the national economy, the College started the program of energy engineering in 1438/1439. This specialization is concerned with qualification of engineers to work on design, construction, operation and maintenance of various traditional, nuclear and renewable energy systems from

## Strategic Plan College of Engineering

wind and solar energy, as well as working on energy conservation systems and integration of renewable energy systems with traditional systems.

In 1438/1439, the College of Engineering launched its first graduate program with a Master of Engineering Management, which is available to those who are distinguished and interested in completing their educational journey from all engineering programs with all its different disciplines. There are also graduate programs in preparation, including postgraduate diplomas, master's and doctorate degrees.

**Dr. Othman Subhi D. Alshamrani**

Dean, College of Engineering



### GENERAL OVERVIEW

#### SHORT HISTORY

Universities are excelling for their prediction to meet market and community requirements. The college of engineering (CoE) at Imam Abdulrahman Bin Faisal University (IAU) is a crispy clear portrait for the response of IAU to such national market needs. The college of engineering emerged with its unique, unconventional and unique specializations compared to other universities in the Kingdom of Saudi Arabia (KSA), dictated by necessities to respond to the ever changing market requirements. Examples of these specializations are: Construction Engineering, Environmental Engineering, Biomedical Engineering, Transportation and Traffic Engineering, Energy Engineering, Maritime Engineering, Safety Engineering and Mechatronics Engineering . The increasing demand for all of these specializations cannot be fulfilled except through nationals who are sincere to the future of the country and who could contribute in adopting technologies and transferring experiences. Such inspirations are reflected in KSA Vision 2030.

The first group of students admitted to College of Engineering initially consisted of 75 students and it esclated within the past yesar to three groups of students with B.Sc. in construction engineering and environmental engineering have graduated so far (1436H/2015G), while the first group of biomedical engineering graduated in the summer of 1437H (2016G). The total number of students in the college, according to 1439H (2017G), statistics is 446 students distributed among four levels, the figure below reflects the development of registred students number between year (2013/14 – 2017/18).

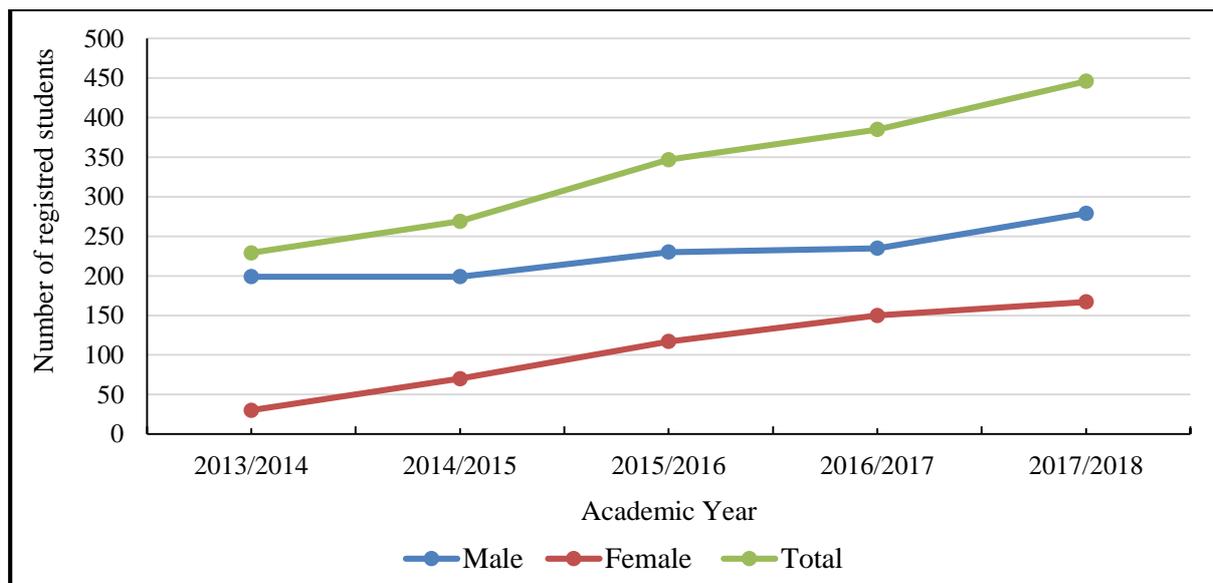


Figure 1: College of Engineering; Students' number development in years (2013/14 - 2017/18)

## Strategic Plan College of Engineering

The college has fifty eight faculty members, twenty one lecturers, twenty one teaching assistants, and forty two laboratory technicians and administrative staff in the college according to 1439H (2017G) statistics. College administration and male-classes are located in the new college building within the eastern campus of the university while female classes and small-scale laboratories are located in building 800. Large-scale laboratories are located in Gashler campus. New laboratory sites are under preparation to accommodate departmental facilities within the new building premises.

Ever since the college started, it has adopted the mechanism and procedures of the National Commission for Academic Accreditation and Assessment (NCAAA)<sup>1</sup> in addition to the procedures of the American Accreditation Board for Engineering and Technology (ABET). The college also accommodates several basic sciences and specialized educational and research labs.



<sup>1</sup> <http://www.ncaaa.org.sa/en/Pages/default.aspx>

### COLLEGE DEPARTMENTS

#### **Environmental Engineering Department**

Environmental Engineering is one of the first two specializations provided by the college launched in the academic year 1429/1430H (2009/2010G), are crucially needed in order to cope with persisting necessities due to the development the Kingdom is facing nowadays and which is expected to flourish in the future. The department of environmental engineering is considered as a pioneer since it is the first department to offer the bachelor degree environmental engineering in the kingdom of Saudi Arabia. It concentrates on application of fundamentals of sciences and engineering towards improvement of the environment (air, water and earth resources) for provision of potable and palatable water, clean air and useful land to be used by man and other living organisms and for treatment of polluted areas. Environmental engineering incorporates: water and air quality management, abatement of pollution, reuse and recycling, hazardous solid waste disposal, general health issues and knowledge of related law to environmental engineering. Environmental engineering also involves environmental impact assessment for proposed projects in building and industry. An environmental engineer is concerned with environmental behavior and hazardous solid waste management in form of studies to evaluate these hazards, offering advice in regards of treatment and enclosure and establishing systems to prevent accidents. Other concerns of the environmental engineer are: design of municipal and industrial water supply, wastewater treatment systems. This is in addition to his responsibilities all over the globe with environmental issues such as: effects of trans boundary pollutants, ozone layer depletion, water pollution, air pollution from vehicles and industrial sources.

#### **Construction Engineering Department**

Construction engineering avails competent engineers to efficiently supervise all types of construction projects at their stages of design and execution both in the office and field. Construction Engineering includes the following: planning, managing and building establishments like highways, bridges, airports, railways, buildings, dams and reservoirs. The building of such projects requires knowledge in engineering basics, business administration, procedures, economics and human behavior. The professional construction engineer's duties may include: designing temporary buildings, ensuring and controlling quality, planning and surveying the construction site, testing the construction materials on the site, surveying the layout of the construction sites, designing concrete mixtures, estimating costs, planning and scheduling, safety engineering, materials and purchases, selecting equipment, engineering

costs and budget control. Construction engineering differs from building management in the level of mathematics, sciences and engineering required to solve the problems and processes involved in building.

### **Biomedical Engineering Department**

Biomedical Engineering for female students was introduced in the academic year 1432H (2011G), which deals with equipment, instrument design and operation in the medical sector. Biomedical Engineering is defined as the application of engineering principles and design concepts to medicine and biology. This field aims to understand, modify, or control biological systems, as well as design and build products that are capable of monitoring physiological functions and assisting in diagnosing and treating patients. Biomedical Engineering seeks to close the gap between engineering and medicine: it combines the design and problem solving skills of engineering with the medical and biological sciences in order to improve healthcare diagnosis, monitoring and therapy. Recently, biomedical engineering has emerged as its own discipline. Most of the work done by biomedical engineers focuses on research and development, covering a wide range of subfields, such as: biomedical electronics, bioinstrumentation, biomaterials, biomechanics, tissue and genetic engineering, clinical engineering, medical imaging, rehabilitation engineering, systems physiology, bio nanotechnology, and neural engineering.

### **Transportation and Traffic Engineering Department**

Traffic and transportation engineering started in 1435H (2013G) to handle all types of ground transportation infrastructure and systems (railway, highway, and airports). The Institute of transportation Engineers (1987) defines transportation engineering as: Transportation engineering is the application of technology and scientific principles to the planning, functional design, operation and management of facilities for any mode of transportation in order to provide for the safe, efficient, rapid, comfortable, convenient, economical, and environmentally compatible movement of people and goods transportation and Traffic Engineering is a relatively new subject under the field of Civil Engineering, and covers aspects of the highway engineering, traffic engineering, transportation and travelling in general.

# Strategic Plan College of Engineering

## ORGANIZATION CHART OF COLLEGE OF ENGINEERING

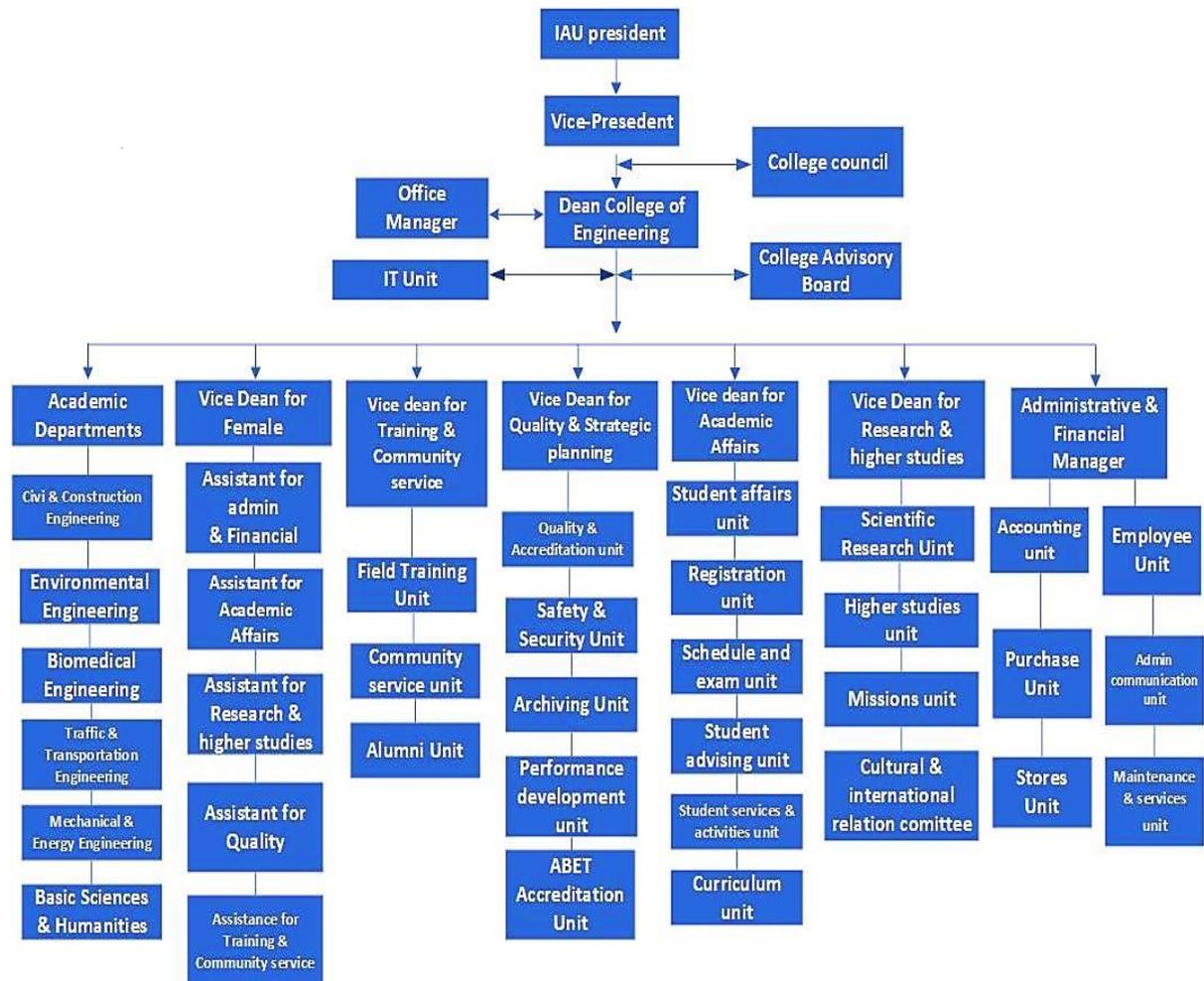


Figure 2: College of Engineering Organization Chart

## Strategic Plan College of Engineering

### STRATEGIC PLANNING TEAM MEMBERS

<b>Name</b>	<b>Position</b>
<b>Dr. Othman Subhi D. Alshamrani</b>	Dean, College of Engineering
<b>Dr Ibrahim Aljamaan</b>	Vice dean academic affairs
<b>Dr Nawaf Alblaisi</b>	Vice dean Community service and training
<b>Dr Fahad Alamri</b>	Vice dean for research and higher studies
<b>Prof. Dr. Ömer AĞA</b>	Vice Dean for Strategic planning and quality
<b>Dr Nawaf Blaisi</b>	Head, environmental engineering department
<b>Dr Fahad Alamdi</b>	Head, Mechanical & Energy engineering dept.
<b>Dr Walid Akutti</b>	Head, Civil & construction engineering dept.
<b>Dr Abdulhakeem Alomari</b>	Head, Biomedical Engineering department
<b>Dr Sami Othman</b>	Head, Traffic & Transportation engineering dept.
<b>Dr Abdulhha Manda</b>	Head, basic sciences & humanities department
<b>Mr Khaled Alamro</b>	Manager of administrative & financial
<b>Dr. Muhammad Saleem</b>	Head, Safety committee
<b>Member from SPU, DQAA</b>	
<b>Dr. Mohammed Suleiman Gibreel</b>	Director, Strategic Planning Unit
<b>Dr. Mohammed Fadol Ali Nasser</b>	Strategic planning coordinator
<b>Dr. Abdelgadir Mudawi Mohamed</b>	Risk management coordinator

Table 1: strategic planning team members

**PART ONE**  
**STRATEGIC PLAN PROCESS**

### **PART ONE: STRATEGIC PLAN PROCESS**

#### **INTRODUCTION**

The college of Engineering provided much effort to develop five years strategic plan 2018-2022 in order to achieve its future vision in a systematic way and to set the policies and procedures that help to pursue the achievement of strategic objectives, and to set system for regular evaluation. The development of the strategic plan based on the following steps:

- To develop a vision, mission, values and goals for the College of Engineering.
- Determine the strategic objectives for the college and the projects that will achieve.
- Developing the management systems within the college and its departments in line with its strategic goals and objectives.
- Developing performance indicators for the college and at department levels to measure and evaluate the quality of implementation of plan.
- Setting a mechanism for implementation, monitoring and evaluation of the plan performance.

#### **STRATEGIC PLAN RESOURCES AND REFERENCES**

- Saudi vision 2030.
- National Transformation Program 2020.
- Strategic plan for higher education (AAFAQ).
- Strategic Plan of Imam Abdulrahman Bin Faisal University.

#### **STRATEGIC PARTNERS**

CoE stakeholders play an important role in the planning and implementation phases of strategic administration. The inclusion of the needs and expectations of these stakeholders reflects the realism of the strategic plan. Stakeholders are identified as in the following figure:

## Strategic Plan College of Engineering

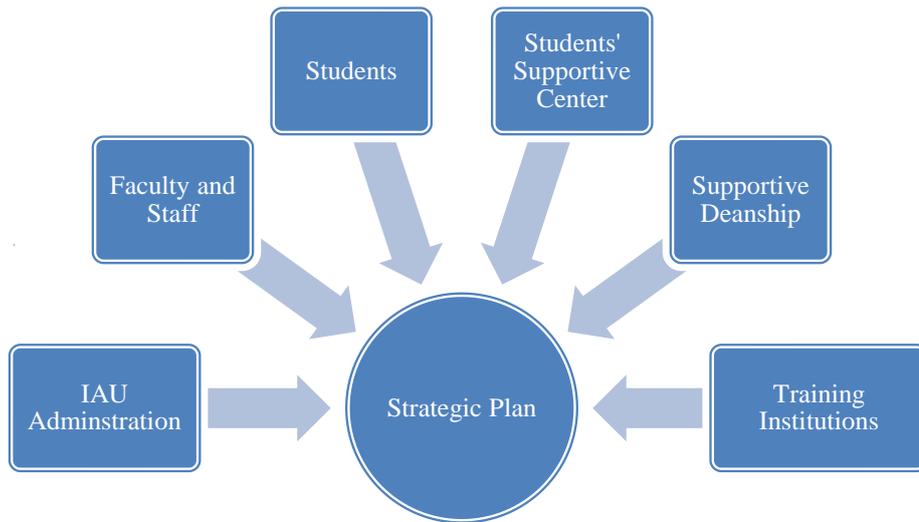


Figure 3: College of Engineering strategic partners

### STRATEGIC PLAN PROCESS

Below is the methodology or strategic planning process being applied to develop the strategic plan for the College of Engineering it had been developed according to IAU strategic model (see Figure ):

- Formulation of the strategic planning taskforce.
- Plan to plan, the process stages of developing Strategic plan was set out.
- Collect data and study of all documents, reports and statistics about the College of Engineering performance.
- Conduct a brainstorm workshop for scanning internal and external environment and SWOT analysis.
- Definition of strategic priorities for the college of Engineering according to the table of SWOT analysis.
- Revisiting the Vision, Mission and values of College of Engineering.
- Formulation of the Strategic goals and objectives and approved by the college council.
- Development of the implementation plan (projects, metrics, KPIs, Cost, timeline and responsibility of execution)
- Development of first draft of strategic plan and get the feedback from stakeholders.
- Set the final draft of Strategic Plan 2018 - 2022 for the college of Engineering.

## Strategic Plan College of Engineering

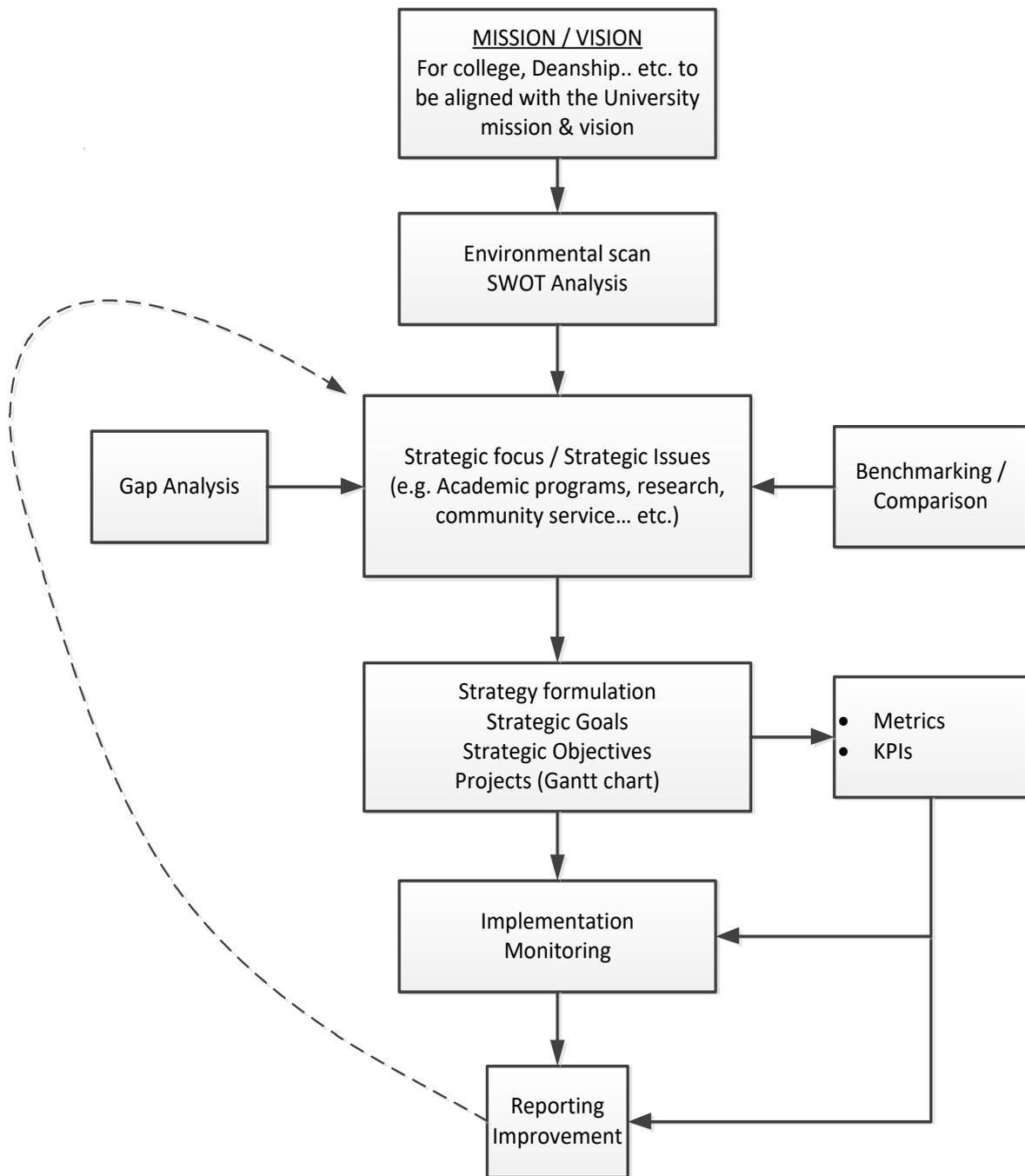


Figure 4: IAU Strategic planning Model

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### ENVIRONMENTAL SCAN AND SWOT ANALYSIS:

Taking into consideration the distinctive programs and location of CoE in the Eastern Province, CoE planning team first conducted the college's environmental scanning to identify the external issues that could affect the formulation and achievement of goals such as political, economical, social, environmental, technological, and competitive factors. Hence, the team has selected the opportunities that could lead to growth or improvement and threats that could cause decline in effectiveness and hinder achievement of strategic objectives.

The team also scanned the internal environment to identify internal strengths the college possess and internal weaknesses it faces.

The conclusion of strengths, weaknesses, opportunities and threats all drafted analysed and evaluated as shown on the following table:



	Helpful – Positive Factors	Harmful – Negative Factors
Internal Factors	<p><b>Strengths (S)</b></p> <ul style="list-style-type: none"> <li>• Distinguished Programs</li> <li>• Highly qualified staff &amp; laboratories</li> <li>• High reputation</li> <li>• Technologically current</li> <li>• Effective organizational structure</li> <li>• Effective quality control &amp; student support</li> <li>• External collaborations</li> <li>• Leadership in the university</li> <li>• Effective community service</li> <li>• Effective committees and task forces</li> <li>• Annual performance reports of past years are available</li> <li>• Manager's use past performance reports for improvement</li> <li>• Members regard us well</li> <li>• No Competitor in the Kingdom (BM Dept.)</li> <li>• Learning Resources &amp; Environment</li> </ul>	<p><b>Weaknesses (W)</b></p> <ul style="list-style-type: none"> <li>• Cost control of purchasing</li> <li>• The college strategy is unclear</li> <li>• Specialized staff support is limited</li> <li>• The number of administrative staff in the departments is low</li> <li>• We have a poor track record for implementing strategy</li> <li>• Staff to student ratio is high</li> <li>• Training of the Female</li> <li>• Postgraduate courses</li> <li>• Poor communication with the female department</li> <li>• Positions without authority</li> <li>• Lack of office equipment and space in the female section</li> <li>• Lack of proper schooling for kids</li> <li>• Low Salaries</li> <li>• Clinic and first aid kits missing</li> <li>• Lack of Technicians and workshop</li> <li>• Skilled people are leaving</li> <li>• Quality, performance monitoring &amp; improvement strategy are not in place (Env. Dept.)</li> <li>• Problems in the Study Plan (BM Dept.)</li> <li>• Lack of Financial Support for Faculty (BM Dept.)</li> </ul>
	External Factors	<p><b>Opportunities (O)</b></p> <ul style="list-style-type: none"> <li>• Proper Orientation</li> <li>• Distance learning programs</li> <li>• Post graduate programs</li> <li>• KSA vision 2030</li> <li>• Industry collaborations</li> <li>• Income sources can be diversified</li> <li>• Offer new programs</li> <li>• Reinvestment is possible (Env. Dept.)</li> <li>• Demand of Graduates in Market (BM Dept.)</li> </ul>

Table 2: SWOT analysis Matrix – College of Engineering

### STRATEGIC PRIORITIES

To facilitate the achievement of vision and mission and to select the right critical success factors CoE has set the following strategic priorities:

- Academic programs; development and improvement.
- Attractive teaching and learning environment.
- Enhancing students' success.
- Recruit and retain qualified faculty and staff.
- Improve research production and impact.
- Expand strategic partnership and community service.
- Develop self-generating income.



### COLLEGE OF ENGINEERING, VISION MISSION AND VALUES

#### ▪ **Vision**

A leading college offering distinctive engineering programs that contributes to achieving Saudi Arabia's Vision 2030.

#### ▪ **Mission**

Integrating excellence and sustainability in education, research, and community partnership to graduate skillful and economic-driven engineers.

#### ▪ **Values**

College values are sought from Islam and from the guidance of the Prophet Mohammed Peace be upon Him who was described in Quran as being "You are a model of perfect manners" and whom was reported to have said "I was sent to complete good manners". The College also seeks to inject professional manners, and adopt sustainable development in designs and projects supervised by them.

- Honesty
- Faithfulness
- Punctuality at work
- Evenness
- Safety
- Truthfulness

## Strategic Plan College of Engineering

### STRATEGIC GOALS

In order to accomplish the vision, mission, and values, and in the light of analyzing internal and external environment and strategic priorities the college of engineering has set the following strategic goals:

<b>Goal 1</b>	Achieve excellence in engineering teaching and learning that will enable leadership in economic development.
<b>Goal 2</b>	Provide safe, healthy, comfortable, and productive environment for effective learning and teaching.
<b>Goal 3</b>	Graduate skillful engineers with technical, communication and leadership skills to pursue careers and graduate studies.
<b>Goal 4</b>	Recruit retain and develop distinguished faculty and staff who integrate teaching, research, community and support services.
<b>Goal 5</b>	Create a motivating environment to carry out a high-quality research.
<b>Goal 6</b>	Establish strategic partnerships with academia, industry, and government for training and professional practice.
<b>Goal 7</b>	Develop financial resources that support teaching, learning, research and other activities to move towards self-reliance under vision 2030.

Table 3: CoE strategic goals

## Strategic Plan College of Engineering

### STRATEGIC OBJECTIVES

In order to accomplish the vision, mission, values and realize the achievement of strategic goals CoE has set the following strategic objectives:

**Goal One:** Achieve excellence in engineering teaching and learning that will enable leadership in economic development.

Obj. #	Objective
1.1	Develop distinguished academic programs to support sustainable development and growth under the Vision 2030.
1.2	Evaluating and updating the curricula on continuous bases to match current and future market demands.
1.3	Articulate the relevant graduate employability skills and competencies in the learning outcomes
1.4	Establish High Quality Postgraduate Engineering Programs
1.5	Attract distinguished students who are committed to engineering before enrollment
1.6	Maintain Robust Quality Management System And Achieve Accreditation at National And International Levels.
1.7	Infuse the culture of quality, strategic thinking and risk management in all college activities

**Goal Two:** Provide safe, healthy, comfortable, and productive environment for effective learning and teaching.

Obj. #	Objective
2.1	Develop and enhance risk management systems.
2.2	Provide attractive physical environment for faculty, staff, and students
2.3	Update and maintain laboratories and facilities with state-of-the-art technology and equipment
2.4	Promote the health and well-being of students through extra-curricular, social and non-academic activities.

**Goal Three:** Graduate skillful engineers with technical, communication and leadership skills to pursue careers and graduate studies.

Obj. #	Objective
3.1	Improve the employment rates by offering certificate courses, software training programs/certifications.
3.2	Provide students with necessary teamwork, leadership, and communication skills to address community problems effectively.
3.3	Deliver outstanding programs that promote creative thinking and competencies needed for success in careers.
3.4	Enhance professional practice by regular site visits, on-site training and invited experts from industry.
3.5	Improve academic and students' future career counselling

## Strategic Plan College of Engineering

**Goal Four:** Recruit retain and develop distinguished faculty and staff who integrate teaching, research, community and support services.

Obj. #	Objective
4.1	Attract highly qualified and experienced faculty and staff by establishing recruiting strategy and process.
4.2	Develop an effective organizational management system, infused with quality.
4.3	Increase the job satisfaction and retention of faculty and staff to support the college mission and vision.
4.4	Provide diversified training programs to improve faculty and staff performance.
4.5	Set reasonable workloads and regularly assess the performance of faculty and staff responsibilities and authorities.

**Goal Five:** Create a motivating environment to carry out a high-quality research.

Obj. #	Objectives
5.1	Identify strategic areas of research with special focus on the Eastern province and establish plan to address these areas.
5.2	Improve productivity of scientific research and patents.
5.3	Increase scholarly publication rate to an average of one publications/faculty/year.
5.4	Encourage faculty and students to participate in and promote research, scholarship, and creative activities.

**Goal Six:** Establish strategic partnerships with academia, industry, and government for training and professional practice.

Obj. #	Objectives
6.1	Enhance internal and external collaboration and develop strategic partnerships agreements with institutions at national and international levels.
6.2	Increase faculty and students participation in community service organizations
6.3	Establish alumni network at college and program levels

**Goal Seven:** Develop financial resources that support teaching, learning, research and other activities to move towards self-reliance under vision 2030.

Obj. #	Objectives
7.1	Develop and maintain paid diploma, master and doctorate programs
7.2	Qualify and market accredited reference labs.
7.3	Design and provide paid certificate courses to help industrial sector in the Eastern province and the Kingdom.
7.4	Provide consultancy and professional services for industry and encourage entrepreneurship.

### **ALIGNMENT OF CoE GOALS WITH IAU GOALS**

To achieve its vision and mission, IAU has set 11 strategic goals that cover all academic and administrative performance of the university. These goals are cascaded and at the same time set the reference framework for establishing strategic plans of colleges, deanships, directorates, and centers of the university.

CoE is aligned its plan with IAU strategic plan to ensure the it contributes to the achievement of IAU vision, mission and values.

#### **Vision and Mission of IAU**

- **Vision**  
A leading University achieving distinction nationally, regionally and internationally
- **Mission**  
Providing creative knowledge, research, and professional services with effective community partnerships

#### **Strategic Goals of IAU**

- Goal 1:** Create and sustain in a major professional university high quality instruction, research and service in professional fields relevant to Eastern Province, the nation, the GCC, and beyond.
- Goal 2:** Build a new organizational model of management system, infused with quality, to handle the future size and complexity of IAU.
- Goal 3:** Infuse a culture of quality with recognition into all our professional activities to ensure accountability and achievement of stated objectives at all levels throughout all units in IAU.
- Goal 4:** Expand opportunities for student learning and engagement to support realization of their academic and career aspirations.
- Goal 5:** Provide access and support for all qualified students, while establishing a vibrant and interactive campus environment to create a university community and foster loyalty.
- Goal 6:** Establish “state-of-the-art” libraries and related learning resources
- Goal 7:** Develop sustainable modern facilities, equipment and related infrastructure to serve high quality teaching and learning, research and community service programs.
- Goal 8:** Develop and implement a robust financial planning and management system to serve all academic and administrative
- Goal 9:** Increase human resource capacity to accomplish its teaching, research and service missions more effectively
- Goal 10:** Create a culture of intellectual curiosity and conduct research of the highest ethical standards to generate new knowledge through research in health, industry, and the humanities to advance the well-being and welfare of the community.
- Goal 11:** Develop institutional relationship with the community and business partnership to expand private sector joint investments.

### Alignment of CoE Strategic Plan with IAU Strategic Plan

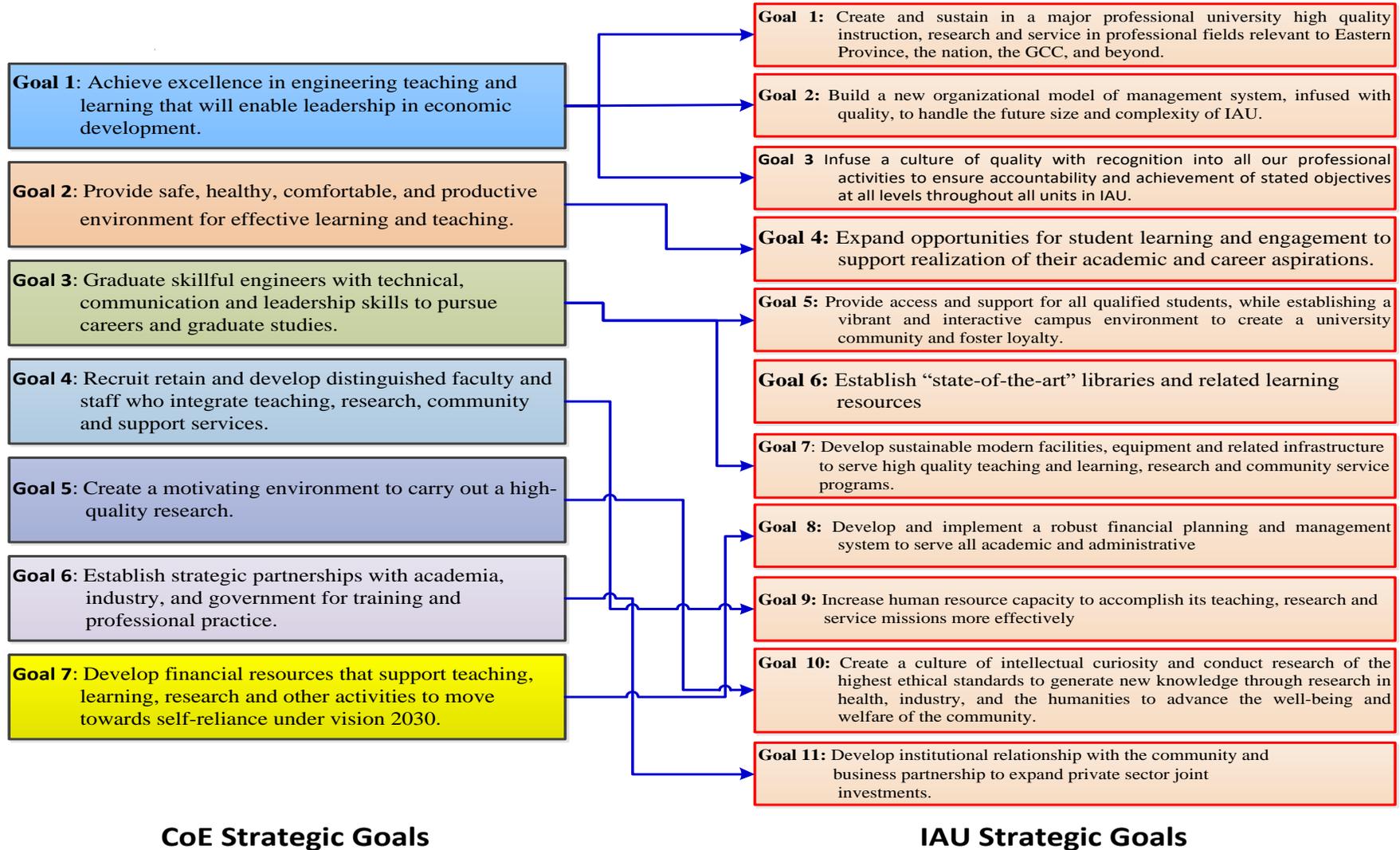


Figure 5 : Alignment of CoE strategic plan with IAU strategic plan

**PART TWO**  
**IMPLEMENTATION PLAN**

## **PART TWO: IMPLEMENTATION PLAN**

### **BASIC CONSIDERATIONS**

The Gantt charts was classified according to the 7 goals. Each goal classified into some objectives. Each objective has the following components:

- Overview: The duration of implementation, budget, start date and implementation responsibility.
- Metrics / Key Performance Indicators (KPIs)
- Projects: their names and the proposed duration of implementation.

The project timeline was determined by the size of each project. The timeline for major projects was allocated in years and micro projects in months.



## Strategic Goal 1

**Achieve excellence in engineering teaching and learning that will enable leadership in economic development.**

**Objective 1.1. Develop distinguished academic programs to support sustainable development and growth under the vision 2030.**

OVERVIEW	
Duration	5 years
Cost/year	<b>60 million</b>
Starting Date	Jan 2018
Responsibility for Implementation	Dean & Head of Department

METRICS/KPIs
1. Number of programs developed per year.
2. Number of programs approved per year
3. Number of programs implemented

### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
1.1.1. Launch Department of Energy & Mechanical Engineering	2018 ~ 2022					
1.1.2. Establish Bachelor of Civil & Infrastructure Engineering	2018 ~ 2022					
1.1.3. Establish Bachelor of Civil & Structural Engineering	2018 ~ 2022					
1.1.4. Establish Bachelor of Artificial Limbs Engineering	2018 ~ 2022					
1.1.5. Establish Bachelor of Safety Engineering	2018 ~ 2022					
1.1.6. Establish Bachelor of Military Engineering	2018 ~ 2022					
1.1.7. Establish Bachelor of Clinical Engineering	2018 ~ 2022					
1.1.8. Establish Bachelor of Science in Biomedical Engineering	2018 ~ 2019					
1.1.9. Establish Bachelor of Science of Energy Engineering	2018 ~ 2019					

## Strategic Plan College of Engineering

### Strategic Goal 1

**Achieve excellence in engineering teaching and learning that will enable leadership in economic development.**

**Objective 1.2. Evaluating and updating the curricula on continuous bases to match current and future market demands.**

OVERVIEW	
Duration	5 years
Cost/year	6 Millions
Starting Date	Jan 2018
Responsibility for Implementation	HoD, VDAA & Academic Affairs

METRICS/KPIs
1. Number of update curricula
2. Number of accredited programs
3. Number of design software used
4. Development of policy and procedure for labs improvement.

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
1.2.1. Update curricula to address local needs under Vision 2030, benchmark program against top international programs	2018					
1.2.2. Apply for international and local accreditations	2018 ~ 2022					
1.2.3. Curriculum Appraisal Consultancy	2018 ~ 2022					
1.2.4. Quality qualifier training and maintenance appraisals	2018 ~ 2022					
1.2.5. Updating current TTENG program	2018 and ongoing					
1.2.6. Develop policy and procedures for continuous improvement in laboratory work, design studio & software skill development	2018 ~ 2022					
1.2.7. Equipping & Adding in the department the most appropriate & relevant software's to support all design based courses	2018					
1.2.8. Provide state of art environmental and analytical laboratory and modeling skills	2018					
1.2.9. Provide Students with proactive skills and hands-on experience for professional development	2018					

## Strategic Plan College of Engineering

### Strategic Goal 1

**Achieve excellence in engineering teaching and learning that will enable leadership in economic development.**

**Objective 1.3. Articulate the relevant graduate employability skills and competencies in the learning outcomes.**

OVERVIEW	
Duration	5 years
Cost/year	2,2 Millions
Starting Date	Jan 2018
Responsibility for Implementation	VDCS & Head of Departments

METRICS/KPIs
1. Number of Created liaison with relevant industry
2. Definition of graduate attributes for programs.
3. Alignment of learning outcomes to graduates skills

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
1.3.1. Create and maintain liaison with related industry via regular meeting and conferences	2018					
1.3.2. Define graduate attributes to meet employability skills requirement	2018					
1.3.3. Align program learning outcomes to graduate employability skills.	2018					

## Strategic Plan College of Engineering

### Strategic Goal 1

**Achieve excellence in engineering teaching and learning that will enable leadership in economic development.**

#### Objective 1.4. Establish High Quality Postgraduate Engineering Programs.

OVERVIEW	
Duration	2 years
Cost/year	20 millions
Starting Date	Jan 2018
Responsibility for Implementation	Head of Departments

METRICS/KPIs
1. Number of postgraduate programs developed per year.
2. Number of programs approved per year
3. Number of programs established

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
1.4.1. Establish Masters in Construction Management	2018 ~ 2019					
1.4.2. Establish Masters in Construction Engineering	2018 ~ 2019					
1.4.3. Establish Masters in Environmental Engineering	2018 ~ 2019					
1.4.4. Establish Masters in Biomedical Engineering for Artificial Limbs	2018 ~ 2019					
1.4.5. Establish Certificate Short Courses in Environmental Engineering	2018 ~ 2019					
1.4.6. Establish Masters in Energy Engineering.	2018 ~ 2019					
1.4.7. Establish Masters in Transportation Engineering.	2018					
1.4.8. Establish Masters in Traffic engineering and management	2018					
1.4.9. Establish Postgraduate Diploma in Transportation Eng.	2018					
1.4.10. Establish PhD programs	2018 ~ 2019					
1.4.11. Establishing an International graduate student's scholarship	2018 ~ 2019					

## Strategic Plan College of Engineering

### Strategic Goal 1

**Achieve excellence in engineering teaching and learning that will enable leadership in economic development.**

**Objective 1.5 Attract Distinguished Students to Engineering before Enrolment.**

OVERVIEW	
Duration	1 year
Cost/year	900,000 SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDCS & VDAA

METRICS/KPIs
1. Number of Established outreach program
2. Student admission degree.
3. Establishment of mechanism to improve image of the college
4. Number of meetings with Prep year students

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
1.5.1. Establish high school / college outreach program	2018					
1.5.2. Cooperation and coordination with preparatory year and registration administration.	2018					
1.5.3 Arrange high school student visit trips	2018					
1.5.4 Arrange seminars, presentations and workshops for students	2018					
1.5.5 Establish mechanism to project positive image of College	2018					
1.5.6 Promoting the college performance to prep year students	2018					

## Strategic Plan College of Engineering

### Strategic Goal 1

**Achieve excellence in engineering teaching and learning that will enable leadership in economic development.**

**Objective 1.6. Maintain Robust Quality Management System and Achieve Accreditation at National And International Levels.**

OVERVIEW	
Duration	3 years
Cost/year	<b>300,000 SAR</b>
Starting Date	Jan 2018
Responsibility for Implementation	VDQA

METRICS/KPIs
1. Established quality management system
2. Number of accredited programs nationally
3. Number of accredited programs internationally
4. Achievement of risk management system

#### Project Calendar (5 years)

PROJECTS/TASKS
1.6.1. Establish a dynamic web based Quality Management System for academic programs and strategic plan
1.6.2. Fulfil the requirement for national and international accreditation
1.6.3. Establish risk management system for the college

Start and ending date
2018
2018-2020
2018-2020

2018	2019	2020	2021	2022

## Strategic Plan College of Engineering

### Strategic Goal 1

**Achieve excellence in engineering teaching and learning that will enable leadership in economic development.**

**Objective 1.7. Infuse the culture of quality, continuous improvement and strategic thinking in all college activities**

OVERVIEW	
Duration	2 years
Cost/year	500,000 SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDQA

METRICS/KPIs
1. Number of employees attended ISO 9001
2. Number of Safety and risk management awareness activities
3. Number of accredited labs.
4. Number of strategic thinking training workshops

#### Project Calendar (5 years)

PROJECTS/TASKS
1.7.1. Train and achieve ISO 9001 for administrative affairs
1.7.2. Develop and implement safety and risk management leadership awareness.
1.7.3. Achieve Lab accreditation ISO 17025
1.7.4. Establish a program for training and workshops on strategic thinking

Start and ending date
2018
2018 ~ 2019
2018 ~ 2019
2018 ~ 2019

2018	2019	2020	2021	2022

**Strategic Goal 2**

**Provide safe, healthy, comfortable, and productive environment for effective learning and teaching.**

**Objective 2.1. Develop and infuse a risk management systems**

<b>OVERVIEW</b>	
Duration	5 years
Cost/year	<b>2 million SAR</b>
Starting Date	Jan 2018
Responsibility for Implementation	VDQA

<b>METRICS/KPIs</b>
1. Established risk management system.
2. Implemented smart entry ID system.
3. Number of inventories achieved for labs. and assets.
4. Number of Labs implemented with lab. Safety.

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>
2.1.1. Establish and embed Risk Management System
2.1.2. Make smart entry ID system to entire laboratories
2.1.3. Establish Inventory system for lab. and assets
2.1.4. Develop lab safety manual.

<b>Start and ending date</b>
2018 ~ 2022
2018
2018
2018

2018	2019	2020	2021	2022

## Strategic Plan College of Engineering

### Strategic Goal 2

**Provide safe, healthy, comfortable, and productive environment for effective learning and teaching.**

**Objective 2.2. Provide attractive physical & academic environment for faculty, staff, and students.**

OVERVIEW	
Duration	5 years
Cost/year	352 Million SAR
Starting Date	Jan 2018
Responsibility for Implementation	HoD, Admin & VDQS

METRICS/KPIs
1. Establishment of On-campus centre provisions
2. Number of equipped staff rooms
3. Students degree of satisfaction about academic advising services
4. Students degree of satisfaction about counselling services
5. Number of students engaged in active research

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
2.2.1. Providing on-campus centre for community related activities, sports and entertainment or leisure facilities for families.	2018 ~ 2019					
2.2.2. Establish College Environment Committee	2018 ~ 2019					
2.2.3. Establish Faculty & staff Lounge equipped with refrigerator, microwave, water dispenser, coffee maker etc.	2018					
2.2.4. Enhance services offered to students to provide academic advising and counselling.	2018					
2.2.5. Provide faculty members' incentives for engaging students in active research.	2018					
2.2.6. Provide office utilities to all faculty members	2018					

## Strategic Plan College of Engineering

### Strategic Goal 2

**Provide safe, healthy, comfortable, and productive environment for effective learning and teaching.**

#### Objective 2.3. Update and maintain laboratories and facilities with state-of-the-art technology and equipment

OVERVIEW	
Duration	3 years
Cost/year	10 Million SAR
Starting Date	Jan 2018
Responsibility for Implementation	Head of Departments, Laboratories & VDGS

METRICS/KPIs
1. Updated list of lab equipment.
2. Number of purchased latest software and design tools
3. Lab. management system manual
4. Implemented lab safety and emergency plan
5. Number of established prototyping.

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
2.3.1. Updating the lab equipment	2018 ~ 2020					
2.3.2. Purchasing and implementing latest software's and design tools	2018 ~ 2020					
2.3.3. Development of Latest Laboratories and Research Centre	2018 ~ 2020					
2.3.4. Prepare and Implement Lab Management System	2018 ~ 2020					
2.3.5. Developing and Implementing the Lab Safety and Emergency Plans	2018 ~ 2020					
2.3.6. Establishment of Prototyping and Advanced Manufacturing facility for State-of-the-art research and support facility	2018 ~ 2020					

## Strategic Plan College of Engineering

### Strategic Goal 2

**Provide safe, healthy, comfortable, and productive environment for effective learning and teaching.**

#### Objective 2.4. Promote extra-curricular, social and non-academic activities

OVERVIEW	
Duration	1 year
Cost/year	500,000 SAR
Starting Date	Jan 2018
Responsibility for Implementation	Head of Departments

METRICS/KPIs
1. Number of executed outreach programs
2. Number of established student volunteer programs
3. Number of enhanced extracurricular programs per year
4. Number of organized site visits conducted per year

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
2.4.1. Establishing Outreach / Engagement Program with Society & Stakeholders	2018					
2.4.2. Establishing Student Volunteer Programs to help promote social and non-academic activities within the society	2018					
2.4.3. Enhance the extracurricular programs in social, sports, arts, intellectual, cultural and community and environment.	2018					
2.4.4. Organize extracurricular activities, competitions and events	2018					
2.4.5. Organize Site visits	2018					
2.4.6. Conduct non-academic journeys for the students each semester.	2018					

**Strategic Goal 3**

**Graduate skilful engineers with technical, communication and leadership skills to pursue careers and graduate studies.**

**Objective 3.1. Improve the employment rates by offering certificate courses, software training programs/certifications**

<b>OVERVIEW</b>	
Duration	5 years
Cost/year	2 Million SAR
Starting Date	Jan 2018
Responsibility for Implementation	Head of Departments & VDCCS

<b>METRICS/KPIs</b>
1. Number of short courses conducted per year
2. Number of software training conducted per year
3. Percentage of students involved in internship programs

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>
3.1.1. Offering Short Courses Program
3.1.2. Offering Training on latest software
3.1.3. Offering Internship program.

<b>Start and ending date</b>
2018 ~ 2022
2018
2018

2018	2019	2020	2021	2022

**Strategic Goal 3**

**Graduate skilful engineers with technical, communication and leadership skills to pursue careers and graduate studies.**

**Objective 3.2. Provide students with necessary teamwork, leadership, and communication skills to address community problems effectively**

<b>OVERVIEW</b>	
Duration	5 years
Cost/year	1 Million SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDCS & VDAA

<b>METRICS/KPIs</b>
1. Number of industry participation programs and initiatives per/year
2. List of identified problems in the community
3. Number of seminars and workshops on community services per/year

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>	<b>Start and ending date</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
3.2.1. Develop, Initiate and Launch Industry Participation Program and initiatives	2018 ~ 2019					
3.2.2. Arrange regular visits to identify existing problems in the community	2018					
3.2.3. Arrange Seminars, workshops on <del>and</del> community Service	2018 ~ 2022					
3.2.4. Inculcating commitment to community service as a culture in the academic activities of the college	2018 ~ 2022					

## Strategic Plan College of Engineering

### Strategic Goal 3

**Graduate skilful engineers with technical, communication and leadership skills to pursue careers and graduate studies.**

**Objective 3.3. Deliver outstanding program outcomes that promote creative thinking and competencies needed for success in careers**

OVERVIEW	
Duration	3 years
Cost/year	400,000 SAR
Starting Date	Jan 2018
Responsibility for Implementation	Head of Departments, VDR & VDAA

METRICS/KPIs
1. Satisfaction of faculty and students about the problem based learning strategies.
2. Number of conducted competitions per year
3. Number of awareness campaigns per year

#### Project Calendar (5 years)

PROJECTS/TASKS
3.3.1. Develop and implement problem based learning strategies.
3.3.2. Launch Design project, creative thinking & Paper writing competitions.
3.3.3. Organize awareness campaign about technical & non-academic issues

Start and ending date
2018 ~ 2020
2018
2018

2018	2019	2020	2021	2022

## Strategic Plan College of Engineering

### Strategic Goal 3

**Graduate skilful engineers with technical, communication and leadership skills to pursue careers and graduate studies.**

**Objective 3.4. Enhance professional practice by regular site visits, on-site training and invited experts from industry.**

OVERVIEW	
Duration	5 years
Cost/year	<b>700,000 SAR</b>
Starting Date	Jan 2018
Responsibility for Implementation	Head of Departments

METRICS/KPIs
1. Number of lectures by industrial experts
2. Number of training programs offered per year
3. Number of working sites visits per year
4. Degree of Satisfaction of students about summer training

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
3.4.1. Organize invited lecture from industrial experts	2018 and continuous					
3.4.2. Invite experts from the industry to offer training programs and show of latest technology	2018 and continuous					
3.4.3. Arrange regular visits to working sites for students	2018 and continuous					
3.4.4. Enhance and expand summer training company list	2018 and continuous					
3.4.5. Establish regular visits to professional facilities for onsite training.	2018 and continuous					

## Strategic Plan College of Engineering

### Strategic Goal 3

**Graduate skilful engineers with technical, communication and leadership skills to pursue careers and graduate studies.**

#### Objective 3.5. Improve academic and students' future career counselling

OVERVIEW	
Duration	5 years
Cost/year	300,000 SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDCS

METRICS/KPIs
1. Completed mentoring scheme for student career development.
2. Number of career seminars per year
3. Number of counselling orientation per year
4. Number of workshops conducted per year

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
3.5.1. Develop mentoring scheme for students regarding career development.	2018 and continuous					
3.5.2. Career Seminars	2018 and continuous					
3.5.3. Invite the executives from industry to deliver counselling orientation.	2018 and continuous					
3.5.4. Conduct workshops for preparing CV, Cover letters, and how to address up for interview etc.	2018 and continuous					

## Strategic Plan College of Engineering

### Strategic Goal 4

**Recruit retain and develop distinguished faculty and staff who integrate teaching, research, community and support services.**

**Objective 4.1. Attract highly qualified and experienced faculty and staff by establishing recruiting strategy and process**

OVERVIEW	
Duration	5 years
Cost/year	3 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	Dean & Head of Departments

METRICS/KPIs
1. List of current and future needs for department
2. Recruitment plan
3. Number of visits to universities per year

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
4.1.1. Define the current and update the future recruitment needs of departments.	2018 ~ 2022					
4.1.2. Develop and implement the recruitment plan.	2018 ~ 2019					
4.1.3. Arranging visit to well-known universities for recruiting	2018 ~ 2022					
4.1.4. Hiring qualified technicians for labs	2018 ~ 2019					

## Strategic Plan College of Engineering

### Strategic Goal 4

**Recruit retain and develop distinguished faculty and staff who integrate teaching, research, community and support services.**

**Objective 4.2. Develop an effective organizational management system, infused with quality**

OVERVIEW	
Duration	5 years
Cost/year	1.2 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	Dean & VDQA

METRICS/KPIs
1. Approved management system
1. Number of mentor trainees
2. Approved development plan

#### Project Calendar (5 years)

PROJECTS/TASKS
4.2.1 Develop and implement organizational management system and providing feedback on performance assessment and performance review.
4.2.2. Training and qualifying faculty as mentors and evaluators.
4.2.3. Collaborative performance planning and creation of development plan.

Start and ending date
2018 - 2022
2018 - 2019
2018

2018	2019	2020	2021	2022

## Strategic Plan College of Engineering

### Strategic Goal 4

**Recruit retain and develop distinguished faculty and staff who integrate teaching, research, community and support services.**

**Objective 4.3. Increase the job satisfaction and retention of faculty and staff to support the college mission and vision**

OVERVIEW	
Duration	5 years
Cost/year	17 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	Dean & Head of Departments

METRICS/KPIs
1. Faculty and staff satisfaction per year
2. Number of funded research or exceptional academic accomplishments per year
3. Number of faculty support programs per year

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
4.3.1. Reward faculty with high performance with competitive salary and annual increment package	2018 ~ 2022					
4.3.2. Extended Contract Program: Award 5-year contract to exceptional faculty	2018 ~ 2022					
4.3.3. Establish Distinguished Faculty Support Program	2018 ~ 2022					
4.3.4. Professional appraisal system based on rewarding achievement and positive accountability.	2018					
4.3.5. Develop a robust fund for providing special research funds for exceptional academic accomplishments.	2018					
4.3.6. Encourage and Nominate candidates for annual national prizes, awards, and membership in distinguished societies	2018					
4.3.7. Provide faculty housing within or near the campus.	2018					

## Strategic Plan College of Engineering

### Strategic Goal 4

**Recruit retain and develop distinguished faculty and staff who integrate teaching, research, community and support services.**

**Objective 4.4. Provide diversified training programs to improve faculty and staff performance**

OVERVIEW	
Duration	5 years
Cost/year	1.4 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDCS & Head of Departments

METRICS/KPIs
1. Number of online short courses and training programs
2. Number of supervisors
3. Percentage of new faculty have been trained per year
4. Numbers of workshops, seminars, conferences and in-house round table discussions conducted per year

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
4.4.1 Utilise University, College and Department faculty development initiatives.	2018					
4.4.2. Make greater use of online short courses and training to develop needed skills and talents.	2018					
4.4.3 Require supervisors to undergo training in basic supervisory skills and to refresh and update those skills on a regular basis	2018					
4.4.4 Provide training & orientation for new faculty	2018					
4.4.5. Provide interpersonal skill training	2018					
4.4.6. Arrange Workshops, seminars, conferences and in-house round table discussions.	2018					
4.4.7 Collaboration with other universities	2018 ~ 2022					
4.4.8 Utilize the faculty members expertise to provide the college with training programs	2018 ~ 2019					

**Strategic Goal 4**

**Recruit retain and develop distinguished faculty and staff who integrate teaching, research, community and support services.**

**Objective 4.5. Set reasonable workloads and regularly assess the performance of faculty and staff responsibilities and authorities**

<b>OVERVIEW</b>	
Duration	1 year
Cost/year	<b>1.5 Millions</b>
Starting Date	Jan 2018
Responsibility for Implementation	VDAF & Head of Departments

<b>METRICS/KPIs</b>
1. Approved regulation for load distribution
2. Percentage of faculty member were activated their profiles
3. Percentage of faculties those conducted peer reviews
4. Number departmental meeting minutes per year

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>	<b>Start and ending date</b>	2018	2019	2020	2021	2022
4.5.1 Establish regulations for load distribution	2018					
4.5.2. Create and sustain faculty profile including knowledge, skills, research, awards, achievements, certifications, and work experience to assess the faculty.	2018					
4.5.3 Conduct faculty peer reviews and student surveys using course/faculty evaluation system	2018					
4.5.4 Regulate workload summary of faculty members across departments, programs and courses	2018					
4.5.5. Maintain Regular Departmental meetings	2018					
4.5.6. Evaluation of faculties yearly evaluation reports and their performance.	2018					

**Strategic Goal 5**

**Create a motivating environment to carry out a high-quality research.**

**Objective 5.1 Identify strategic areas of research with special focus on the Eastern province and establish plan to address these areas.**

<b>OVERVIEW</b>	
Duration	4 years
Cost/year	7 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	VRes & Head of Departments

<b>METRICS/KPIs</b>
1. Research alignment program Launched.
2. Numbers of established research units/laboratories

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>
5.1.1 Establish and Launch Research Alignment Program
5.1.2. Establish and Specialized Research Units/Laboratories
5.1.3. Continuing collaboration with stakeholders

<b>Start and ending date</b>
2018
2018 ~ 2021
2018 ~ 2022

2018	2019	2020	2021	2022

## Strategic Plan College of Engineering

### Strategic Goal 5

**Create a motivating environment to carry out a high-quality research.**

#### Objective 5.2. Improve productivity of scientific research and patents

OVERVIEW		METRICS/KPIs
Duration	5 years	1. Number of research chairs
Cost/year	18 Millions SAR	2. Number of research committees
Starting Date	Jan 2018	3. Approved research ethics and procedure
Responsibility for Implementation	VDRes & Head of Departments	4. List of issues hindering research activities and their solutions.

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
5.2.1 Establish Post-Doctoral Scholarship program	2018 ~ 2022					
5.2.2. Launch Multidisciplinary Research Program and inter-departmental research projects	2018 ~ 2022					
5.2.3 Establish at least one research chair in each department	2018 ~ 2022					
5.2.4 Establish a Centre of Excellence	2018 ~ 2019					
5.2.5. Provide state of the art equipment to the departments .	2018 ~ 2022					
5.2.6 Establishment of research committee in each department	2018					
5.2.7 Development of required research strategy of the department within the framework approved by IAU.	2018					
5.2.8. Identify existing and potential means of securing research funds within and outside IAU and communicate with members to apply	2018					
5.2.9. Continuous Identification of issues that are hindering research activities and try to propose solutions	2018					
5.2.10. Increased and continuous research collaboration within the college, IAU and beyond	2018					

**Strategic Goal 5**

**Create a motivating environment to carry out a high-quality research.**

**Objective 5.3. Increase scholarly publication rate to an average of one publications/faculty/year**

<b>OVERVIEW</b>	
Duration	5 years
Cost/year	<b>8 million SAR</b>
Starting Date	Jan 2018
Responsibility for Implementation	VDRes & Head of Departments

<b>METRICS/KPIs</b>
1. Number of formulated research groups
2. Publication rate per faculty/year
3. Number of workshops on software per year

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>	<b>Start and ending date</b>	2018	2019	2020	2021	2022
5.3.1 Develop and Launch Graduate Teaching / Research Assistance Program	2018 ~ 2022					
5.3.2 Research groups formation and assign goals to each group	2018 ~ 2019					
5.3.3 Acknowledge, promote and communicate research achievements internally and externally	2018					
5.3.4 Encourage faculty for research and publication	2018					
5.3.5 Establishing new research computation lab to ensure increased accessibility to models /software.	2018					
5.3.6 Conducting specialized research workshops on software, analysis methods etc.	2018 ~ 2019					

## Strategic Plan College of Engineering

### Strategic Goal 5

**Create a motivating environment to carry out a high-quality research.**

**Objective 5.4 Encourage faculty and students to participate in and promote research, scholarship, and creative activities**

OVERVIEW	
Duration	5 years
Cost/year	7 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDRes & Head of Departments

METRICS/KPIs
1. Approved criterion for research excellence award and publications rewards
2. Percentage of faculty and students participate in conferences and workshops per year

#### Project Calendar (5 years)

PROJECTS/TASKS
5.4.1 Revise the Criterion for Research Excellence Award and Publication Rewards
5.4.2 Develop and Launch Conference Attendance / Support Program
5.4.3 Encourage faculty members and the students to participate in workshops and conferences.
5.4.4 Encourage members to initiate research within the resources available in the department and/or college of engineering

Start and ending date
2018 ~ 2019
2018 ~ 2022
2018
2018

2018	2019	2020	2021	2022

**Strategic Goal 6**

**Establish strategic partnerships with academia, industry, and government for training and professional practice.**

**Objective 6.1 Enhance internal and external collaboration and develop strategic partnerships agreements with institutions at national and international levels**

<b>OVERVIEW</b>	
Duration	5 years
Cost/year	<b>2.5 Millions SAR</b>
Starting Date	Jan 2018
Responsibility for Implementation	VDCS, VDRes & Head of Departments

<b>METRICS/KPIs</b>
1. Signed agreement with strategic partners
2. List of professional organisations certification bodies
3. List of departmental agreements with other institutions
4. Number of executed business trip programs per year

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>	<b>Start and ending date</b>	2018	2019	2020	2021	2022
6.1.1 Establish strategic partnerships with local and international organizations (academia, industry, government).	2018					
6.1.2 Continuing collaboration with national and international professional organizations and certification bodies.	2018					
6.1.3 Establish communication channels to enhance internal partnerships agreement with institutions and industry.	2018					
6.1.4 Collaboration between department and other institutions.	2018					
6.1.5 Business Trip Program: Local, regional and international travel incentives to promote IAU capabilities and expertise	2018					

## Strategic Plan College of Engineering

### Strategic Goal 6

**Establish strategic partnerships with academia, industry, and government for training and professional practice.**

#### Objective 6.2 Increase faculty and students participation in community service organization

OVERVIEW	
Duration	2 years
Cost/year	7 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDCS,

METRICS/KPIs
1. Approved reward system for innovations.
2. Number of community-based research per year
3. Number of awareness activities per year
4. Percentage of faculties and students participate in community services.

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
6.2.1. Establish reward system for innovations in community services and incentives with systematic initiatives.	2018 ~ 2019					
6.2.2. Community-based Research.	2018 ~ 2019					
6.2.3. Conduct yearly Awareness campaign to traffic safety	2018 ~ 2019					
6.2.4. Encourage faculty and students to participate in community services.	2018 ~ 2019					
6.2.5. Initiate Support Club to collaborate with community services organizations.	2018 ~ 2019					
6.2.6. Develop policy and procedure to encourage the instructors to assign students for community services.	2018 ~ 2019					

## Strategic Plan College of Engineering

### Strategic Goal 6

**Establish strategic partnerships with academia, industry, and government for training and professional practice.**

#### Objective 6.3 Establish alumni network at college and program levels

OVERVIEW	
Duration	5 years
Cost/year	3 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	VDCS & Head of Departments

METRICS/KPIs
1. Updated alumni database
2. Number of committee meeting minutes
3. Number of social media groups

#### Project Calendar (5 years)

PROJECTS/TASKS
6.3.1. Develop and update alumni database
6.3.2. Establish alumni committee
6.3.3. Yearly Alumni celebration and gathering events.
6.3.4. Establish social media groups for alumni
6.3.5. Establish communication with alumni using regular communication tools

Start and ending date
2018 ~ 2022
2018 ~ 2019
2018 ~ 2019
2018 ~ 2019
2018 ~ 2019

2018	2019	2020	2021	2022

**Strategic Goal 7**

**Develop financial resources that support teaching, learning, research and other activities to move towards self-reliance under vision 2030.**

**Objective 7.1 Develop and maintain paid diploma, master and doctorate programs**

<b>OVERVIEW</b>	
Duration	5 years
Cost/year	22 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	Dean & VDRes & Head of Departments

<b>METRICS/KPIs</b>
1. Number of approved low diploma programs
2. Approval of master and doctorate programs
3. Number of short courses

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>
7.1.1 Develop undergraduate diploma program in all Departments
7.1.2 Postgraduate Diploma in all Departments
7.1.3 Master and doctorate programs
7.1.4 Short Courses in various fields and all departments

<b>Start and ending date</b>
2018 ~ 2020
2018 ~ 2020
2018 ~ 2022
2018 ~ 2019

2018	2019	2020	2021	2022

**Strategic Goal 7**

**Develop financial resources that support teaching, learning, research and other activities to move towards self-reliance under vision 2030.**

**Objective 7.2 Qualify and market accredited reference labs**

<b>OVERVIEW</b>	
Duration	5 years
Cost/year	<b>4 Millions SAR</b>
Starting Date	Jan 2018
Responsibility for Implementation	Dean & VDRes & Head of Departments

<b>METRICS/KPIs</b>
1. Number of developed renewable energy research labs.
2. Number of accredited reference labs
3. Number of certified labs
4. Number of labs participated in proficiency testing system
5. Number of commercialised testing labs.

**Project Calendar (5 years)**

<b>PROJECTS/TASKS</b>	<b>Start and ending date</b>	2018	2019	2020	2021	2022
7.2.1 Qualify accredited reference Labs	2018-2022					
7.2.2 Participate in lab proficiency testing systems to ensure result accuracy.	2018 ~ 2022					
7.2.3 Encourage departments to develop commercial testing laboratories.	2018					

## Strategic Plan College of Engineering

### Strategic Goal 7

**Develop financial resources that support teaching, learning, research and other activities to move towards self-reliance under vision 2030.**

**Objective 7.3 Design and provide paid certificate courses to help industrial sector in the Eastern province and the Kingdom.**

OVERVIEW	
Duration	5 years
Cost/year	3.5 millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	Dean & Head of Departments

METRICS/KPIs
1. Number of approved Continuing education programs
2. Number of approved paid certificates
3. Number of delivered short training per year

#### Project Calendar (5 years)

PROJECTS/TASKS
7.3.1 Continuing Education Program: Providing certificate training courses in various specialties
7.3.2 Design & provide paid certificates
7.3.3 Deliver short training such as occupational health and safety (OSHA), Environmental Impact Assessment (EIA).

Start and ending date
2018
2018
2018

2018	2019	2020	2021	2022

## Strategic Plan College of Engineering

### Strategic Goal 7

**Develop financial resources that support teaching, learning, research and other activities to move towards self-reliance under vision 2030.**

#### Objective 7.4. Provide consultancy and professional services for industry and encourage entrepreneurship

OVERVIEW	
Duration	5 years
Cost/year	3 Millions SAR
Starting Date	Jan 2018
Responsibility for Implementation	Dean & Head of Departments

METRICS/KPIs
1. Waste management centre
2. Energy centre
3. Consultancy and professional services centre
4. Promotion plan for consultancy and lab services

#### Project Calendar (5 years)

PROJECTS/TASKS	Start and ending date	2018	2019	2020	2021	2022
7.4.1 Establish Centre of Waste Managements	2018 ~ 2020					
7.4.2 Establish Centre of Energy	2018 ~ 2019					
7.4.3 University Industry Liaison Program: marketing IAU capabilities in terms of researchers, facilities, etc	2018 ~ 2019					
7.4.4 Establish consultancy centre and professional services for industry	2018 ~ 2022					
7.4.5 Develop and implement promotion plan for consultation and lab services	2018 ~ 2022					
7.2.6 Develop renewable energy (Solar/Wind) Research Lab: Testing of Solar/PV cells and wind energy related systems.	2018 ~ 2022					

## **EVALUATION AND FOLLOW-UP OF THE STRATEGIC PLAN**

The strategic management process of an organization does not end with the strategy formulation phase alone. Implementation of the strategy is the most crucial phase of strategic planning because there must be a translation of strategic thought into strategic action. Moreover, successful strategy formulation does not guarantee successful strategy implementation. Having understood this concept clearly, the college has assured to implement the plan through the vice deans and the chair of departments under the directions of the dean.

This plan will be implemented through a multidisciplinary and integrated system approach with the active involvement of all the department and its stakeholders. In order to help guide and support the implementation of the plan, a task force that consists of committed staff, faculty members, and representatives from the current student body.

Furthermore, various forms and periodical reports will be generated and forwarded to Vice dean, chair of departments and administrators for their further action and continuous improvement. It has been made clear that the implementation process will be strictly carried out as per the set timelines, and metrics/KPIs and so on. The college has also decided to have a mass communication session with all faculty, staff and other stakeholders every six months once in order to update them on achievements and progress and get their feedback on the implementation of the plan.

### ACKNOWLEDGEMENT

Vice deanship of Quality and Strategic Planning is thankful to all the participants of the Strategic Planning and Risk Management team.

Especial Gratitude is reserved for His Excellency Dr. Othman Subhi D. AlShamrani, Dean College of Engineering for his patronage to the committee team. Humble Gratitude is also reserved for Dr. Ahmed Al-Kuwaiti, Supervisor General, and Representatives and staff of Deanship of Quality and Academic Accreditation for their support and valuable feedback and input in helping improve the quality of the document.

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