King Khalid University, Abha, Kingdom of Saudi Arabia

College of Engineering

Strategic Plan 2019-2024

"To be a pioneer in engineering education, innovative research and sustainable development of the community"

Strategic Plan (2019-2024)

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Introduction

The College of Engineering (COE) at King Khalid University is emerging as one of the top Engineering Colleges of Kingdom of Saudi Arabia. The College is committed to contribute significantly in achieving the vision and the mission of the King Khalid University and the Saudi vision 2030. Since its inception, COE has been evolving as a hub of knowledge to the community. It has ambitious leadership, state of the art facilities, and highly qualified faculty from different parts of the globe, making it a diversified platform for the sharing and transfer of knowledge. All the eligible engineering programs are accredited by ABET, and two programs are accredited by NCAAA. The strategic planning is important for COE where its role is two-fold; leadership in creating technological advances and education of students who will have a significant positive impact to respond to the societal needs. The strategic plan in an academic environment is unique to charter the roadmap towards comprehensive development of college and the university. The strategic plan of the COE is mapped with the strategic plan of the King Khalid University. The domains of SAQF, the KPIs and the students' learning outcomes of NCAAA have been explicitly included in the plan. Each strategic goal is well described and the risks as well as the approach to manage them are addressed. The initiatives required to achieve every aspect of the strategic goal are clearly defined along with the responsibility. The all-inclusive and measurable indicators have been clearly stated and mapped with the equivalent NCAAA KPIs for the institute and the program. The KPIs may be measured either by direct or indirect assessment methods which include data collection, surveys etc. The strategic plan is developed for a period of five years and will be adequately complemented with the operational plans, which will be developed by the academic programs to ensure its accomplishment.

Vision

To be a pioneer in engineering education, innovative research and sustainable development of the community.

Mission

To achieve academic excellence by providing adequate teaching-learning resources, motivating scientific research, and bring forth qualified engineers to serve the community.

Values

Honesty: We adhere to the Islamic values and ethical principles, and we seek to complete our mission in the best manner.

Commitment: We abide by business rules and regulations, and shoulder the responsibility for the University and our country.

Respect: We adhere to mutual respect, accept the other opinion, welcome criticism and appreciate others' efforts.

Excellence: We abide by the excellence criteria at the local and international levels in the academic and administrative practices.

Innovation: We fully support innovative ideas and activities, which tackle community challenges and issues.

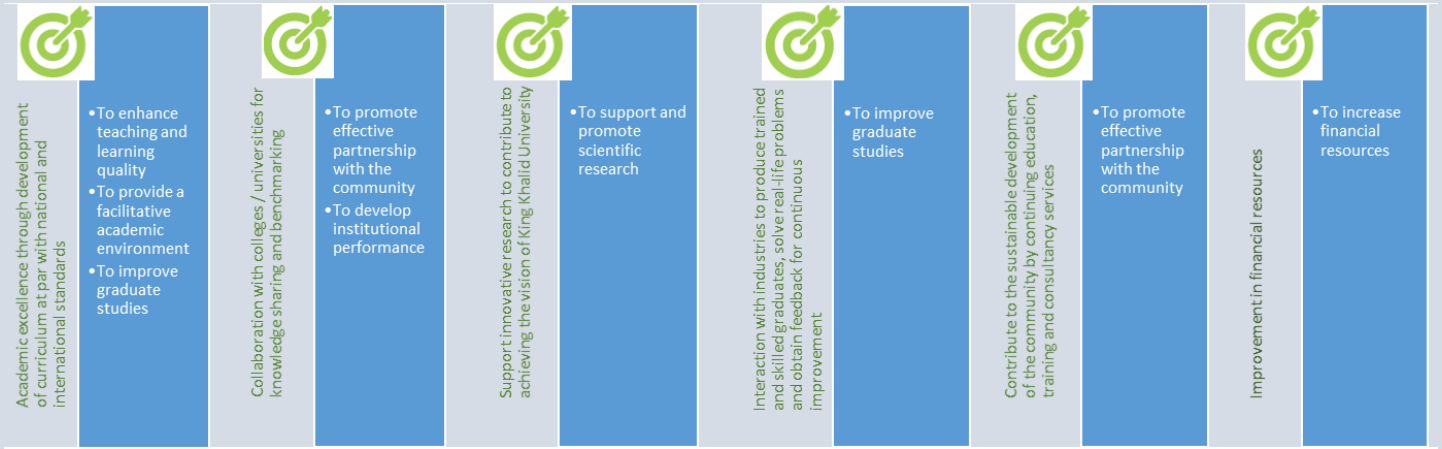
T**ransparency**: The University is committed to clearly deal with all officials and beneficiaries, in the manner that achieves justice, and boosts trust, credibility and the institutional accountability.

STRATEGIC THEMES

STRATEGIC GOALS

1. Academic excellence through development of curriculum at par with national and international standards.
2. Collaboration with colleges / universities for knowledge sharing and benchmarking.
3. Support innovative research to contribute to achieving the vision of King Khalid University.
4. Interaction with industries to produce trained and skilled graduates, solve real-life problems and obtain feedback for continuous improvement.
5. Contribute to the sustainable development of the community by continuing education, training and consultancy services.
6. Improvement in financial resources.

Mapping of the Strategic Goals of College of Engineering to the Strategic Goals of King Khalid University



Strategic Goal No. 1

Academic excellence through development of curriculum at par with national and international standards

S.No.	Initiative	KPIs
1-01	Motivating teaching staff	1.1 Students overall rating on the quality of their courses (Course evaluation survey) (Reference: NCAAA KPI-P-04)
1-02	Improving the quality of learning sources	1.2 Students overall evaluation on the quality of their learning experiences, services offered at the institution (Reference: NCAAA KPI-I-03, KPI-I-10, KPI-P-03, KPI-P-11)
1-03	Developing the adequate teaching-learning environment	1.3 Proportion of teaching staff with verified doctoral qualifications (Reference: NCAAA KPI-I-12)
1-04	Establishment of Fabrication Lab (Fablab)	1.4 Average overall rating of adequacy of facilities and equipment in a survey of teaching staff
1-05	Supporting the students with special needs	1.5 Ratio of students to full time or equivalent teaching staff (Reference: NCAAA KPI-I-11, KPI-P-12) 1.6 Ratio of students to administrative staff
1-06	Orientation Program for newly admitted students	1.7 Percentage of students entering programs who successfully complete first year (Reference: NCAAA KPI-I-04)

1-07	Monitoring and ensuring quality of teaching-learning	1.8 Proportion of students entering undergraduate programs who complete those programs in minimum time (Reference: NCAAA KPI-I-06, KPI-P-05) 1.9 Enrolment in post graduate programs who complete those programs in specified time 1.10 Stakeholder evaluation of library services (Reference: NCAAA KPI-I-07, KPI-P-18) 1.11 Stakeholder evaluation of websites, web-based electronic data management system or electronic resources (Reference: NCAAA KPI-I-01, KPI-I-15, KPI-P-1.23)
1-08	Development and updating the curriculum	1.12 Students overall evaluation on the quality of their learning experiences, services offered at the institution (Reference: NCAAA KPI-I-03, KPI-I-10, KPI-P-03, KPI-P-11) 1.13 Proportion of Accredited programs to total number of programs (Reference: NCAAA KPI-I-02)
1-09	Improving the student-admission standards	1.14 Proportion of teaching staff with verified doctoral qualifications (Reference: NCAAA KPI-I-12) 1.15 Proportion of students with nationality other than Saudi Arabia

1-10	Deciding the number of seats for admissions in undergraduate and post graduate programs	1.16 First-year students retention rate 1.17 Average number of students in the class
1-11	Improving the students' academic performance	1.18 Proportion of students qualified in national specialization tests (Reference: NCAAA KPI-P-07) 1.19 Proportion of graduates from undergraduate programs who within six months of graduation are: (a) employed (b) enrolled in further study (c) not seeking employment or further study (Reference: NCAAA KPI-I-05, KPI-P-08)
1-12	Establishing competitive post-graduate programs	1.20 Enrolment in post graduate programs who complete those programs in specified time 1.21 Proportion of professors and associate professors to total number of faculty (Reference: NCAAA KPI-P-13)
1-13	Arranging external independent review towards progress of the program	1.22 Proportion of programs in which there was independent verification of standards of student achievement by people external to the institution during the year
1-14	National and International accreditation of the academic programs	1.23 Proportion of Accredited programs to total number of programs (Reference: NCAAA KPI-I-02)
1-15	Recruiting and retaining outstanding faculty members	1.24 Proportion of teaching staff leaving the institution in the past year for reasons other than age

		retirement (Reference: NCAAA KPI-I-13, KPI-P-14) 1.25 Proportion of teaching staff leaving the institution in the past year including retirement (Reference: NCAAA KPI-I-13, KPI-P-14)
1-16	Creating a database of CVs for quick recruitment	1.26 Proportion of teaching staff leaving the institution in the past year for reasons other than age retirement (Reference: NCAAA KPI-I-13, KPI-P-14) 1.27 Proportion of teaching staff leaving the institution in the past year including retirement (Reference: NCAAA KPI-I-13, KPI-P-14)
1-17	Expansion in e-learning	1.28 Stakeholder evaluation of e-learning services (Reference: NCAAA KPI-I-07, KPI-P-18)
1-18	Assessing the program learning outcomes	1.29 Students overall evaluation on the quality of their learning experiences, services offered at the institution (Reference: NCAAA KPI-I-03, KPI-I-10, KPI-P-03, KPI-P-11) 1.30 Student evaluation of academic and career counselling through advisory survey (Reference: NCAAA KPI-I-10)
1-19	Assessing the Program Educational Objectives	1.31 Proportion of students qualified in national specialization tests (Reference: NCAAA KPI-P-07)

		1.19 Proportion of graduates from undergraduate programs who within six months of graduation are: (a) employed (b) enrolled in further study (c) not seeking employment or further study (Reference: NCAAA KPI-I-05, KPI-P-08) 1.32 Percentage of achieved indicators of the institutional strategic plan goals (Reference: NCAAA KPI-I-01, KPI-P-01)
1-20	Arranging internal independent review towards progress of the program	1.33 Proportion of programs in which there was independent verification (within the institution) of standards of student achievement during the year
1-21	Fostering the fields of academic collaboration	1.34 Proportion of Accredited programs to total number of programs (Reference: NCAAA KPI-I-02) 1.35 Proportion of teaching staff with verified doctoral qualifications (Reference: NCAAA KPI-I-12)

Strategic Goal No. 2

Collaboration with other colleges/universities for knowledge sharing and benchmarking

S.No.	Initiative	KPIs
2-01	Fostering the fields of academic collaboration and resource sharing with other colleges/universities	2.1 Number of memorandums of understanding (MOUs) signed with other colleges/ universities for sharing of benchmarks and teaching-learning resources 2.2 Proportion of students of other colleges/ universities who take courses in COE-KKU 2.3 Number of events in which students or faculty of COE-KKU have participated in other colleges/universities
2-02	Signing MOUs with other colleges/universities to share the actual benchmarks and performance indicators	2.4 Number of memorandums of understanding (MOUs) signed with other colleges/ universities for sharing of benchmarks and teaching-learning resources
2-03	Organizing events in COE-KKU and inviting delegates from other colleges/universities	2.5 Number of events arranged in College of Engineering-King Khalid University (COE-KKU) with participation of representatives from other colleges/universities
2-04	Organizing conferences, seminars and training programs in collaboration with other colleges/universities	2.6 Number of conferences, seminars and training programs jointly organized in collaboration with other colleges/universities
2-05	Encouraging students and faculty to participate in the events arranged by	2.7 Proportion of students of COE-KKU who take courses in other colleges/universities

	other colleges/universities, outside KKU	
2-06	Encouraging faculty to participate in research and consultancy projects with other colleges/universities	2.8 Number of joint research projects in collaboration with other colleges/universities
2-07	Involving faculty from other colleges/universities in funded research projects	2.9 Number of research or consultancy projects in COE-KKU in which faculty from other colleges/universities are involved
2-08	Inviting external independent reviews for the self-study reports / annual program reports, curriculum and other quality documents	2.10 Number of assignments, independent reviews done by faculty of other colleges/universities for COE-KKU
2-09	Assessing the PLOs	2.11 Stakeholders' overall rating of PLOs
2-10	Assessing the PEOs	2.12 Stakeholders' overall rating of PEOs

Strategic Goal No. 3

Support innovative research to contribute in achieving the vision of the King Khalid University

S.No.	Initiative	KPIs
3-01	To create research chairs, centers of excellence, research groups and laboratories as per the international standards	3.1 Ratio of the budget allocated for the scholarly research to the college overall budget (Reference: KKU strategic plan Goal 4 KPI 4.1) 3.2 Funds for research chairs, centers of excellence and research groups as percentage of the college budget (Reference: COE old strategic plan KPI 2.2)
3-02	To reward researchers who are active in research	3.3 Number of faculty awards for innovative ideas, remarkable activities and teaching excellence (Reference: COE old strategic plan KPI 2.17, NCAAA KPI-I-19)
3-03	To improve the quality of research papers	3.4 Ratio of the number of the scientific articles published in ISI journal to the number of the overall articles (Reference: KKU Strategic Goal 4 KPI 4.2)
3-04	To initiate research cooperation with industry	3.5 Average overall rating of adequacy of facilities and equipment for research activities in a survey of teaching staff (Reference: same as KPI 1.11)
3-05	To encourage interdisciplinary and multidisciplinary research groups	3.6 Number of multi-disciplinary projects with other departments, industry, government and the community (Reference: COE old strategic plan KPI 2.5)

3-06	To encourage research projects solving real life problems related to the province of Asir and contribute to the sustainable development	3.7 Number of national and international collaborative research projects. (Reference: COE old strategic plan KPI 2.6)
3-07	To Provide adequate environment of research	3.8 Funds for research chairs, centers of excellence and research groups as percentage of the college budget (Reference: COE old strategic plan KPI 2.2) 3.9 Number of research chairs, centers of excellence and research groups (Reference: COE old strategic plan KPI 2.1)
3-08	To embrace innovative ideas	3.10 Total fund from government sources and/or from private sources dedicated to nurture talent and innovation (Reference: COE old strategic plan KPI 2.9) 3.11 Number of patents accepted (Reference: old strategic plan KPI 2.4, NCAAA KPI-I-19)
3-09	To define good selection criteria for admissions in post graduate programs	3.12 Proportion of students entering post graduate programs who complete those programs in specified time (Reference: same as KPI 1.8)
3-10	To involve the best undergraduate students in research activities	3.13 Proportion of students involved in research activities
3-11	Establishing competitive and innovative post-graduate programs	3.14 Ratio of the number of the scientific articles published in ISI journal to the number of the overall articles published annually (Reference: KKU Strategic Goal 4 KPI 4.2)

		3.15Number of citations in refereed journals in the previous year per full time equivalent teaching staff (Reference: NCAAA KPI-I-18, KPI-P-17) 3.16 Proportion of full time member of teaching staff with at least one refereed publication during the previous year (Reference: NCAAA KPI-I-16, KPI-P-15) 3.17 Number of participations at academic conferences during the past year per full time equivalent members of teaching staff
3-12	Recruiting research pioneers and retaining outstanding faculty members	3.18 Proportion of teaching staff with verified doctoral qualifications (Reference: same as KPI 1.13, NCAAA KPI-I-12) 3.19 Ratio between number of publications in ISI journals and number of faculty members. 3.20 Proportion of teaching staff leaving the institution in the past year for reasons other than age retirement (Reference: same as KPI 1.18, NCAAA KPI-I-13, KPI-P-14) 3.21 Proportion of professors and associate professors to total number of faculty (Reference: same as KPI 1.20) 3.22 Number of faculty serving on editorial boards of international ISI journals (Reference: old strategic plan KPI 2.12)
3-13	To reduce the teaching load of faculty members who are active in research	3.23 Proportion of faculty members who benefit from teaching load reduction
3-14	To initiate a scientific journal of College of Engineering	3.24 Number of volumes of the scientific journal of College of Engineering per year

Strategic Goal No. 4

Interaction with industries to produce trained and skilled graduates, solve real-life problems and obtain feedback for continuous improvement

S.No.	Initiative	KPIs
4-1	Signing a memorandum of understanding with industries for better placements	4.1 Number of memorandum of understanding signed with industries for placements
4-2	Improving the quality of learning sources using latest software	4.2 Students overall evaluation on the quality of their learning experiences at the institution
4-3	Developing the adequate teaching-learning environment, more of industry oriented / Organizing field visits relevant to curriculum and contemporary issues	4.3 Number of field visits arranges in past academic year
4-4	Supporting the students with special coaching & training aids	4.4 Number of coaching & training aids
4-5	Initiating a unit to identify and solve real life problems / Introducing industry relevant graduation projects	4.5 Proportion of applied graduation projects related to industry
4-6	Monitoring and ensuring quality of teaching-learning, making it job oriented	4.6 Proportion of courses in which student evaluations were conducted during the year

4-7	Development and updating the curriculum as per industry requirements	4.7 Employers' evaluation of the institution graduates proficiency (Reference: NCAAA KPI-I-08, KPI-P-10) 4.8 Satisfaction of alumni with technical services (Reference: NCAAA KPI-I-15) 4.9 Satisfaction of employers with technical services (Reference: NCAAA KPI-I-15)
4-8	Improving the students' academic performance through feedback analysis	4.8 Satisfaction of alumni with technical services (Reference: NCAAA KPI-I-15) 4.9 Satisfaction of employers with technical services (Reference: NCAAA KPI-I-15) 4.10 Proportion of graduates from undergraduate programs who within six months of graduation are: (a) employed (b) enrolled in further study (c) not seeking employment or further study (Reference: NCAAA KPI-I-05)
4-9	Establishing competitive post-graduate programs for wide job offers	4.11 Proportion of postgraduates from undergraduate programs who within six months of graduation are: (a) employed (b) enrolled in further study (c) not seeking employment or further study
4-10	Conducting and evaluating the summer internship satisfying the required learning outcome	4.12 Proportion of students satisfied with the summer internship

Strategic Goal No. 5

Contribute to the sustainable development of the community by continuing education, training and consultancy services

S.No.	Initiative	KPIs
5-1	Develop a plan to enhance the community service activities, monitor engineering problems and find appropriate solutions according to the college strategic goals	5.1 Total number of community services activities organized 5.2 Number of solutions provided to solve engineering problems for the community
5-2	Provide and develop community services activities (sessions, consulting, continuing education, seminars, and workshops)	5.3 Number of community education programs organized in preceding academic year 5.4 Number of professional training programs arranged by faculty over and above the curriculum
5-3	Evaluate and measure the level of satisfaction of the beneficiaries	5.5 Satisfaction of beneficiaries with the community services (Reference: NCAAA KPI-I-15, KPI-I-22, KPI-P-02)
5-4	Augment the contributions of college faculty members in community service activities	5.6 Proportion of full time teaching and other staff actively engaged in community service activities. (Reference: NCAAA KPI-I-23) 5.7 Proportion of faculty members who reviewed research articles for journals and conferences. 5.8 Number of faculty serving on editorial boards of international ISI journals

		(Reference: old strategic plan KPI 2.12) 5.9 Number of faculty who served as editors or sessions' chairs in national and international conferences (Reference: old strategic plan KPI 2.13)
5-5	Encourage faculty to apply for local research projects funded by public and private entities such as Municipalities, SABIC and KACST	5.10 Proportion of full time teaching and other staff actively engaged in applying for research projects funded by public and private entities (outside KKU) such as Municipalities, SABIC and KACST etc.
5-6	Motivate faculty to get the membership in professional organizations	5.11 Proportion of faculty members who have membership in professional organizations
5-7	Involving students in recycling and conservation of environmental resources	5.12 Proportion of students Involved in recycling and conservation of environmental resources
5-8	Participate in socio-cultural and community events	5.13 Proportion of students who participated in socio-cultural and community events

Strategic Goal No. 6

To improve financial resources

S.No.	Initiative	KPIs
6-1	Developing a college budget allocation system	6.1 Ratio of allotted college budget to the number of students
6-2	Activating the college Endowments	6.2 Ratio of the annual revenues obtained from the investment projects to the value of the college endowments
6-3	Inviting budgetary proposals from the departments	6.3 Ratio between budget of the college and number of departments
6-4	Proposal and persuasion for additional financial support from the University	6.4 Proportion of the budget dedicated to research (Reference: NCAAA KPI-I-20)
6-5	Establishing an internal auditing system	6.5 Annual expenditure rate per student (Reference: NCAAA KPI-I-09)
6-6	Motivating the faculty members for collaborative research with industries and colleges of other Universities	6.6 Research income from external sources in the past year as a proportion of the number of full time teaching staff members 6.7 Proportion of funded projects to the total faculty 6.8 Proportion of external funding for research to total research funding (external and internal) (Reference: NCAAA KPI-I-21) 6.9 Number of collaborative research projects to the total number of funded projects in past year

6-7	Replacement or upgradation of obsolete equipment in workshops and laboratories	6.10 Percent of obsolete equipment
6-8	Marketing the each department (through conferences and workshops, websites to show faculty expertise, research services, and equipment)	6.11 Number of department marketing activities
6-9	Establishing self-financing programs, continuing education programs to generate revenue	6.12 Percentage of self-income of the institution (Reference: NCAAA KPI-I-14)
6-10	Promoting consultancy projects and interdisciplinary (inter program, inter college) projects	6.13 Number of consultancy projects 6.14 Number of interdisciplinary projects
6-11	Initiate proposal to benefit from Awkaf scheme of KKU	6.15 Percentage of budget coming from Awkaf to the total budget of the college