قسم الهندسة الكهربية

Electrical Engineering Department

THE STRATEGIC PLAN OF THE ELECTRICAL ENGINEERING DEPARTMENT FOR THE ACADEMIC YEARS 2018-2023

Prepared by

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Electrical Engineering Department

Executive Summary:

This document contains the first version of the Strategic Plan (2018-2023) for the Electrical Engineering Department, College of Engineering, University of Bisha.It contains a brief description about the electrical engineering department, vision, mission and values on which the strategic plan was built in terms of theobjectives actions and environmental analysis.

Vision:

Academic and research excellence in Electrical Engineering with high quality outputs that serve the community

Mission:

1. The Electrical Engineering Department is committed to provide high quality educational programs for the graduation of distinguished scientific engineers capable of competition in the labor market.

2. Seeking to serve the community and the profession through cooperation with specialized organizations in the field of electrical engineering locally and internationally.

3. To provide a rich environment for scientific research by conducting basic scientific and applied researches that contributes to the expansion of boundaries of human knowledge.

Value:

1. Promote the values of discipline, teamwork, and true Islamic behavior.

2. Quality and proficiency in order to improve education, scientific research and community service.

3. Sharing knowledge and improving the quality of life in Asir region and throughout the Kingdom.

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About Electrical Engineering Department:

The Department of Electrical Engineering is one of the academic departments of the College of Engineering in University of Bisha. It has been launched, with the University of Bisha establishment, since the issuance of the Royal Decree No36696/M.B. in Jumada II of 1435, July 2011. The decision included the authorization of academic departments: Civil Engineering, Mechanical Engineering, Industrial Engineering, Electrical Engineering, Architecture Engineering and Biomedical Engineering Departments.

The academic year 1438-1439 is the actual activation of the department, which awards a bachelor of science degree in electrical engineering after passing 162 credit hours during ten semesters, the student will study a number of courses coveringuniversity requirements, college requirements and specialized department requirements In addition to the field training program which qualifies the students to identify the different fields of works and to link the academic aspect.

The Electrical Engineering Department offers an opportunity to receive a distinguished education, which, at the same time,is a strong basis for mathematics and engineering sciences in the different fields of Electrical Engineering (Electrical Power, Machines, Communication and electronics Engineering), at the bachelor's degree. The department is keen to develop the academic programs in accordance with the requirements of the labor marketand the requirements of the development plans of the kingdom to achieve the vision of the kingdom of 2030. This program of Bachelor of Science in Electrical Engineering from University of Bisha is an applied engineering program; its mission is to provide the community with high engineering, skills and qualificationsgraduates and enriching professional life. This undergraduate program provides students with knowledge, competencies in applied science, develops their capabilitiesand skills for to be able to apply them to a wide range of problems in the fields of electrical engineering.

Objectives of the Strategic Plan of the Electrical Engineering Department:

The first objective: (efficiency):

"Graduating competent engineers in electrical engineering capable of proving merit in solving modern problems and keeping abreast of technological development"

Strategy1-1: Diversify teaching methods and develop evaluation techniques

1. Develop integrated assessment tools to measure teaching and learning incomes and outcomes.
2. Apply quality standards in students' assessment methods
3. Prepare tests in a manner that achieves justice in student assessment and competition.

Strategy1-2: Promote students' creativity and excellence to achieve professional and organizational ethical goals and promote values

1. Contribute to emphasizing innovative ideas and supporting students in development.
2. Contribute to scientific meetings and workshops to encourage student's innovation and acquisition of modern scientific knowledge.
3. Organize scientific competitions with awards to promote creativity and excellence among students.
4. Organize site visits and hosting specialized institutions in technology to introduce the modern technology and how update can be acquired.
5. Encourageour students to participate the engineering and scientific authorities in electrical engineering.
6. Implement student activities that highlight leadership skills and promote values among the students of the department.
7. Encourage students to join and support the Engineering Club in order to promote creativity and teamwork.

Strategy1-3: Support our students and provide a training program for students to suit the needs of the labor market

1. Provide technical support and transferring the other experiences to improve the quality of graduation projects in the department.
2. Provide technical support to the training committee to serve the students of the department.
3. Seek to find excellent training opportunities for the students in institutions and factories that assist the electrical engineering.

4. Organize training courses to improve the efficiency of our students in the college.
5. Awarding excellence awards to outstanding students.

The second objective: (continuous advanced education):

"Advanced and updated educational programs to keep pace of continuous development through self-study and meeting the requirements of quality and academic accreditation"

Strategy 2-1: Provide a distinguished educational service for the students of the department

1. Develop programs and academic plans at the level of the bachelor that meet the current and future needs of the society and meet the requirements of the labor market and international standards.
2. Develop the department's lab to achieve the quality of education and academic accreditation standards.
3. Supporting and developing the academic guidance system in the department.
4. Develop the practical aspect of the programs to meet the requirements of professional development

Strategy 2-2: Work for local and international academic accreditation

1. Work on the requirements of local and international accreditation (ABET) for the electrical engineering program.
2. Develop a system to evaluate learning outcomes and measure performance in the department.
3. Contribute to update and improve the college library.

Strategy 2-3: Enhance diverse self-learning methods.

1. Support faculty members and department students to handle self-learning and blackboard training courses.
2. Introduce encouraging awards to motivate students to self-learning.
3. Diversificationthe students evaluating methods in the field of self-learning.

The third objective: (Scientific research):

"Contribution of scientific researchdevelopment that contributes solving the problems of society"

Strategy 3-1: Encouraging and increasing the research of electrical engineering that serves the community

1. Encourage faculty members to establish faculty research teams.
2. Motivate the faculty members to utilize the scientific and research prospects provided by the university.
3. Encourage the research publishing and facilitate local and/or international conference participation.
4. Develop promotion awards for distinguished research projects and patents.
5. Seek to find fundsof outstanding research in electrical engineering that serves the community.
6. Seek to provide updated software in electrical engineering.

Strategy 3-2: Develop graduate programs in the department and develop research

1. Develop programs for postgraduate studies in electrical engineering branches.
2. Take into consideration to reduce the teaching load for faculty members with research activities.
3. Implementation of training programs to develop and improve the professional performance of faculty members.
4. Create opportunities for scientific and academic visits among universities for the faculty members.
5. Motivate faculty members to publish their work in highly impacted scientific journals and to obtain patents.

Strategy 3-3: Is to Contribute for the establishment of a research center in the College and to work on the development of its research activities

1. Establishment of an advanced research center that meets the needs of industry and society.
2. Contribute to community partnerships Initiatives to create a state-of-the-art research center.
3. Form a committee for research ideas marketing and to highlight the achievements in the department.
4. Promote and support research works that serve the community.

The fourth objective: (Community Service):

"Contributing to the establishment of community partnerships with different engineering sectors"

Strategy 4-1: contribute to strength the role of the college and the university in serving the community and the environment

1. Contribute to the formation of the Community partnership committees.
2. Participation in scientific, cultural and community activities.
3. Contributing to the community's awareness about the role of the college and the university in improving the quality of community services.
4. Implementation of attractive student projects and research studies to serve the community and solve its problems

Strategy4-2: Strengthen the partnership with community and industry institutions in training and qualifying students

1. Prepare a database of the cooperating institutions in the field of training and qualifying students and the available training courses.
2. Conducting training courses in cooperation with expert houses and community institutions and with public and private sectors.
3. Carry out scientific trips for students to industrial institutions.
4. Communicate with the graduates to create training and qualification opportunities for them.

Strategy 4-3: Enhancing the role of community participation among students and employees of the department

1. Raising the awareness about the role of community participation among the students and all employees of the department.
2. Contributing to the establishment of specialized research centers that contribute to the development of society and improve the resources of the college.
3. Increasing the contribution of faculty members to the community service activities through participation in cultural and community activities.
4. Motivate the employees of the college to participate in community organizations.

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SWOT Analysis (Internal and External Environment):

Teaching and Learning	
Internal Environment	
Strengths	**Weaknesses**
1. Existence of a youth leadership at the head of the college support the educational process 2. Existence of modern study plan for the undergraduates. 3. The content of the undergraduate courses commensurate with the labor market. 4. The diversity of the experiences and backgrounds of the faculty members. 5. Existence of team working sprit among the education process parties. 6. The availability of an academic environment that supports student activities and creativity 7. Readiness of faculty members for volunteer work and supervision of student activities. 8. Existence of modern educational facilities. 9. Existence of an e-learning lab.	1. The department has beenarisen with a deficiency of scientific disciplines for faculty members. 2. Lack of laboratory technicians and labors. 3. Lack of training programs for the development of faculty member's qualifications. 4. Lack of scientific references and text books in the college library. 5. Absence of a mechanism to make the text book available to the students of the department. 6. Lack of the software programs that support the undergraduate courses 7. Lack of a computer programming laboratory. 8. Lack of some specialized scientific laboratories. 9. The faculty members are academically and administratively loaded that affect the quality of learning process.
External Environment	
Opportunities	**Threats**
1. Thelabor market needs of our graduates. 2. Existence of the facilities and capabilities in the university to increase the skills of faculty members. 3. Existence of opportunities for scholarships to obtain higher degrees. 4. Professors from prestigious universities (inside and outside the Kingdom) can support the academic process.	1. The current building is not suitable for the educational process 2. There is strong competition among universities to attract distinguished teaching staff 3. Lack of cooperation agreements with institutions and engineering sectors for students training.

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Academic Programs and Curricula	
Internal Environment	
Strengths	Weaknesses
1. Existence of an updated academic program to achieve department vision and mission, and meet the needs of the labor market. 2. The availability of periodic development and updating the electrical engineering program. 3. Existence of sufficient curriculums of basic science and math. 4. The existence of a committee for quality and academic accreditation in the college. 5. The academic program credit hours coincide with the requirements for academic accreditation.	1. The program is not yet accredited, neither nationally nor internationally. 2. The effect of increasing the hours of university required courses on the available hours of the bachelor's degree specialization requirement.
External Environment	
Opportunities	Threats
1. The University supports the programs and its development. 2. The university supports launching post graduate programs. 3. The availability to build a social partnership with the labor market to support the outputs of the electrical engineering program. 4. Kingdom vision 2030 supports the development of academic programs.	1. The existence of internationally accredited electrical engineering programs in other universities. 2. Deficiency of major engineering firms in the university region to help training students. 3. The weakness of pre university education programs in the region.

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Scientific research	
Internal Environment	
Strengths	Weaknesses
1- The teaching staff of the are well qualified in scientific research	1- Lack of research centers in the electrical engineering disciplines. 2- Lack of a dedicated laboratory for scientific research. 3- There are no graduate programs (Msc and PhD) in the department. 4- There is no specialized computer lab equipped with scientific software
External Environment	
Opportunities	Threats
1- The College supports the staff members applied for research projects submitted by the Scientific Research deanship. 2- There are of many research opportunities in the field of electrical engineering In the Kingdom.	1- Weakness of financial allocations for scientific research that not increase annually. 2- The system of distribution of the academic teaching load does not support scientific research. 3- There is no financial support for faculty members to attend scientific conferences and seminars

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Community Partnership	
Internal Environment	
Strengths	Weaknesses
1- The presence of a selection of faculty members in the department with different engineering specialties and experience in community service.	1- Lack of an engineering studies and consulting center of for community service. 2- Lack of a mechanism for communication and exchange of information between the department and the community partners. 3- The weakness of information about the consulting services or training/research programs that can be offered by the department.
External Environment	
Opportunities	Threats
1- The support of the university and college for the research projects and studies that serves the community. 2- The need of the community to electrical engineering field.	1- Some institutions rely on experts and technicians to solve Problems outside the university and research centers. 2- The Weakness of financial allocations to encourage members for community partnership