



جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
وكالة الجامعة للبحث العلمي والابتكار
University Vice Presidency for Scientific Research and Innovation

Fields of Innovation

In Imam Abdulrahman bin Faisal University

#Innovate_The Future

|| Attention to knowledge and innovation, technical advancement, and the advancement of human competence represents a vital pillar of growth and development. ||

Custodian of the Two Holy Mosques King Salman Bin Abdulaziz Al- Saud –may Allah protect him–





“ We live in an age of unprecedented scientific and technological innovation and unlimited growth prospects. ”

His Royal Highness Prince Muhammad Bin Salman
Bin Abdulaziz Al-Saud –may Allah protect him–

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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Introduction



Innovation has become an essential pillar of sustainable development. Creative energies contribute to solving problems and challenges facing individuals and societies. Furthermore, it is a key element in supporting the process of sustainable development and creating a better future. Imam Abdulrahman bin Faisal University's interest in supporting and promoting a culture of innovation stems from this growing importance of innovation as well as recognizing its effective role in the progress of countries and achieving prosperity for societies. The purpose of this brochure is to shed light on the most prominent efforts of the university to support and encourage innovation through the launch of the annual innovation award in addition to the distinguished efforts of the research centers and institutes of the Vice Deanship for Scientific Research and Innovation, in support of the scientific research system and promotion of innovation culture and thought.

Speech of His Excellency the President of Imam Abdulrahman Bin Faisal University

In the name of Allah, the Most Gracious the Most Merciful,
And peace and blessings be upon the most honorable of the prophets and messengers, and all his family and companions,

Innovation is considered one of the pillars of sustainable development for any society and is an attribute of our current era due to its active role in raising the quality of life and solving problems facing individuals and societies. Our country, the Kingdom of Saudi Arabia, has recognized the importance of innovation. Therefore, supporting innovation has become one of the most prominent goals of the Kingdom's vision (Saudi Arabia 2030), especially as it is the basis for the knowledge economy that our country is advancing towards with confident steps.

Therefore, the interest of Imam Abdul Rahman bin Faisal University is to spread and enhance the culture of creativity and innovation among the employees of the university. The role of the university is not limited to promoting a culture of innovation, as the university seeks to transform creative ideas into tangible innovations that contribute to facilitating the life of society, in addition to protecting the intellectual property rights of innovators by registering their patents to guarantee their moral and material rights.

In conclusion, I highly appreciate the efforts of the university's employees in supporting and caring for the culture of innovation, and I pray that this structure will continue its way of encouraging creativity and innovation in a way that befits the prestige of our dear country, and that Allah preserves our country's leadership and people.

Prof. Dr. Abdullah bin Mohammed Al-Rubaish

President of Imam Abdulrahman bin Faisal University

Speech of the Vice President of Imam Abdulrahman Bin Faisal University for Scientific Research and Innovation

Praise be to God, Lord of the worlds, and peace and blessings be upon the one who was sent as a mercy to the worlds, our prophet Muhammad and his family and companions:

Innovation is a key driver of economic growth and sustainable development. It helps creators to know their capabilities and motivates them towards finding effective solutions to the challenges faced by societies and countries in various economic, environmental, health and other fields. This importance is evident through the efforts and initiatives offered by our country aimed at supporting innovation and caring for innovators so that they become an active human force in supporting the national economy and the transition towards a knowledge economy.

In line with this growing importance of innovation; Imam Abdul Rahman bin Faisal University is moving towards stimulating creativity and innovation through the continuous efforts of all the university's parties to invest in innovation, discover innovators and provide the necessary support for their innovations. This especially shown through the support the university provides for the journey of innovators through the university's annual innovation award.

Asking the Almighty God to benefit our country, its leadership, and people, and to help us be a sincere aid in the march of this country towards prosperity and development.

Prof. Dr. Fahd bin Ahmed Al-Harbi

Vice President for Scientific Research and Innovation

Speech by the Dean of the Institute of Innovation and Entrepreneurship

In the name of Allah, the Most Gracious the Most Merciful, and peace and blessings be upon Muhammad his final prophet and messenger,

The importance of innovation and entrepreneurship lies in their ability to achieve development and progress, as these two concepts keep pace with the rapid changes that the world is experiencing around us, which call for the need for innovative ideas that can be transformed into products and services that benefit human society.

Since its establishment, Imam Abdulrahman bin Faisal University has worked to enhance the culture of innovation among its employees and support entrepreneurs to encourage them to establish strategic partnerships locally and globally in order to support the achievement of the goals of our country's ambitious vision (Saudi Arabia 2030).

The inauguration of the Institute for Innovation and Entrepreneurship in 2023 is considered one of the most prominent evidence of the growing awareness at Imam Abdul Rahman bin Faisal University of the importance of innovation and entrepreneurship, as the Institute seeks to support innovative ideas and enable promising generations of innovators and entrepreneurs to work with industry leaders and transform their ideas into products and services that support the economic growth of the Kingdom.

We ask Allah Almighty to reward our efforts with good luck and success.

Dr. Kholoud bint Saad Al-Ghamdi

Dean of the Institute of Innovation and Entrepreneurship



**Institute of Innovation
& Entrepreneurship**



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Annual Innovation Event

Institute of Innovation & Entrepreneurship

Innovation has become an essential pillar of sustainable development, as creative energies contribute to solving problems and challenges facing individuals and societies. Furthermore, they are an important element in supporting the sustainable development process and creating a better future.

Imam Abdulrahman bin Faisal University's interest in supporting and promoting the culture of innovation came from this increasing importance of innovation, and in recognition of its effective contribution to the progress of countries and achieving well-being for societies, through the vital role of the Agency for Scientific Research and Innovation and what the Institute of Innovation and Entrepreneurship provides to stimulate, support and sustain innovative ideas and transform them into products or services that provide promising economic opportunities and support community prosperity.

This brochure highlights the university's most prominent efforts to support and encourage innovation through the launch of the annual Innovation Award, and the distinguished efforts made by the research centers and institutes affiliated with the Agency for Scientific Research and Innovation to support the scientific research system and enhance the culture and thought of innovation.

Introductory Video
on Innovation Unit





Vision

An Institute that supports all who pursue ideas with a passion for world-changing impact.



Mission

Empowering generations of innovators and entrepreneurs to work with industry leaders to transform their innovations into businesses, products and services that support economic transformation.



Objectives

1. Work with the university's internal and external partners to support, stimulate and sustain a culture of innovation.
2. Build a strong culture of entrepreneurship and create new knowledge-based businesses.
3. Marketing and protecting the university's intellectual property, leading to the emergence of new products and companies in the Kingdom.
4. Attracting the industry sector to the university to cooperate in the field of research, employing creative university graduates, and participating in the localization of local industries.
5. Create partnerships that support and embrace innovators, inventors, and entrepreneurs on and off campus.

A hand holding a silver trophy cup against a dark blue background with geometric shapes. The trophy is a two-handled cup with a checkered pattern on the base. The background features a dark blue gradient with several overlapping geometric shapes in shades of teal and green on the left side.

Annual Innovation Award



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Annual Innovation Event

Annual Innovation Award

Believing in the role of Imam Abdul Rahman bin Faisal University to build an integrated system for scientific research and innovation, in order to achieve sustainable development of the national economy and enhance its competitiveness globally, and in accordance with what Vision 2030 has campaigned towards the knowledge economy as a strategic priority, and because innovation is one of the tools contributing to achieving this goal; the role of the Innovation Unit at the Vice Deanship of Scientific Research and Innovation came to work on developing and embracing the innovative thinking of university employees at the individual and institutional levels, motivating them to practice creative and innovative thinking, and to participate in providing original solutions to environmental and societal problems, in a manner commensurate with the optimal utilization of economic resources in light of the surrounding environmental determinants.

The annual innovation award is one of the innovative projects that the unit seeks to implement in cooperation with the annual innovation competition committee, which is composed of a high-level group of faculty members at Imam Abdul Rahman bin Faisal University with distinguished expertise and innovative features in various scientific disciplines, under the supervision and chairmanship of the Vice President for Scientific Research and Innovation, making this competition a distinguished annual event for the university.

More About the Award

What are the fields of this award,
who are its targets?

The annual innovation award of Imam Abdulrahman bin Faisal University targets all university employees (faculty members, male and female students, male and female employees) from all disciplines in all health, engineering, humanitarian, and other tracks of the university.

What is the evaluation process?

The process of evaluating innovations is carried out by an evaluation committee that includes a distinguished group of faculty members from various disciplines and academic tracks at the university, and it is a confidential process in which the two parties (the innovator and the evaluation committee) do not disclose any information related to the other party. The evaluation process begins by sorting and studying the submitted entries, evaluating them, and then nominating the winning entries based on the criteria approved by the committee. All members of the evaluation committee are obligated to maintain the confidentiality of the entries and not to disclose any information related to the innovative idea to any individual or entity, by signing a non-disclosure form.



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Annual Innovation Event

How the Annual Innovation Award Supports its Participants?

The annual innovation award provides support to the university's creative employees by adopting their winning innovations, providing them with the necessary support, and incubating them in the university's business incubator to discuss the best ways to market these innovations, in addition to directing them to the patent and technology transfer office at the university; with the aim of protecting intellectual property and registering these innovations as commercial or industrial products of economic and commercial value that contribute to advancing growth and progress in our country.

Award Website



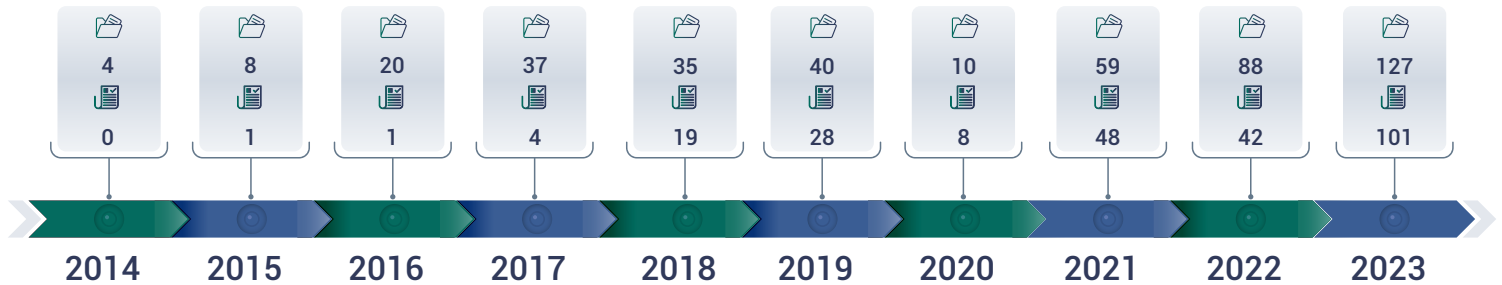
The University Observatory for the Annual Innovation Award data analysis



The background features a dark blue gradient with a semi-transparent overlay of various business charts and graphs. Visible elements include a pie chart at the top center, a bar chart with green and blue bars to its right, a larger bar chart with multiple colored bars (blue, green, yellow, red) in the center, and a line graph with red and blue lines at the bottom left. The charts are slightly blurred and overlaid on a dark blue background.

Facts and numbers for university patents

أعداد براءات الاختراع المسجلة والممنوحة في جامعة الإمام عبدالرحمن بن فيصل Numbers of Filed and Issued Patents in Imam Abdulrahman bin Faisal University



Total Filed إجمالي المسجلة → 428

Total Issued إجمالي الممنوحة → 252

عدد الاختراعات الممنوحة لكل مجال
Number Of Issued Patents For Each Field



Total المجموع —————> 252

جامعة الامام عبدالرحمن بن فيصل ضمن أفضل ١٠٠ جامعة عالمية تسجيلاً لبراءات الاختراع

Imam Abdulrahman bin Faisal University ranked among the 100 top worldwide universities granted US utility patents

2022

عالمياً
Globally

79



محلياً
Locally

3



براءة
اختراع
Patent

42



2021

عالمياً
Globally

58



محلياً
Locally

3



براءة
اختراع
Patent

45





Medical Research and Consultation Institute

Imam Abdulrahman Bin Faisal University has taken scientific research as one of the three most important fields of professional activities, in addition to academic service and community service. The eighth national development plan of the Ministry of Education is based on supporting and encouraging scientific research and technological development in order to enhance the efficiency and economy of the Kingdom. Therefore, the establishment of the Institute of Research and Medical Consultations was in support of the mission of the Ministry of Education for research excellence in Saudi universities and the encouragement of scientific research and development.

The following departments fall under the institute:

- Department of Environmental Health Research
- Department of Neuroscience Research
- Department of Clinical Pharmaceutical Research
- Department of Biophysics Research
- Department of Nanomedicine Research
- Department of Stem Cell Research
- Department of Nuclear Medicine Research
- Department of Epidemiological Diseases
- Department of Genetic Research

A scientist in a white lab coat and a white face mask is shown in profile, holding a small glass flask with a white cap. The background is a blurred laboratory setting with various glassware and equipment. The image has a blue tint and is overlaid with a dark blue gradient. In the bottom left corner, there are several overlapping geometric shapes in shades of teal and green.

Basic and Applied Scientific Research Center

Academic universities are the main incubators and engines for scientific research, in addition to specialized research centers. Therefore, Imam Abdulrahman Bin Faisal University -one of the leading Saudi universities in the Eastern Province- is focused on supporting scientific research by establishing high-quality research centers that would improve the outputs of scientific research and turn them into inventions and innovations that could benefit people and society in all applied fields.

Accordingly, the administrative decision was issued by His Excellency the Director of Imam Abdul Rahman Bin Faisal University Prof. Dr. Abdullah Al-Rubaish, based on the powers vested in him by law and according to the letter of His Excellency the Secretary-General of the Interim Committee acting for the Higher Education Council No. 248 dated 27/2/1437 AH, and based on public interest, the Center for Basic and Applied Scientific Research was established in the college complex in Al-Rayyan, with the aim of advancing the scientific production of members, scholars, and researchers inside and outside the college.

The center's specialized units are divided into 9 units, which are:

- Catalysis Unit
- Biotechnology Unit
- Water Desalination and Treatment Unit
- Environmental Biology Unit
- Mathematical Studies of Real-Life Problems Unit
- Nanotechnology Unit
- Biomolecule Manufacturing and Application Unit
- Sustainable and Renewable Energy Unit
- Statistical Models Unit



Testimonials



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Testimonials

Faculty Members

Health Track



The administration of Imam Abdulrahman Bin Faisal University has harnessed all capabilities to support and encourage innovative students and faculty members, to achieve one of the objectives of the vision of His Highness, the Crown Prince, in the distinction of Saudi universities locally and globally, in light of the unlimited support of our wise leadership, may God protect them.

Dr. Ahmed Al-Thubaiti - Associate Professor of Dentistry, and Head of Health Track Department

Engineering Track



Innovation is crucial to competition, and creativity is integral to innovation. In IAU University, the innovation management process helps in facilitating, prioritizing, evaluating new ideas, as well as turning them into reality. The University annual innovation awards and exhibitors drew the attention of the faculty and students to the importance of innovation. As a faculty member, I am sharing practical ideas to engage students, and encourage innovation and creativity. I do believe that providing interaction in group discussions, collaboration, and providing a safe environment that allows risk-taking, all these encourage students to innovate and think in a creative way

Dr. Gameel Saleh



Environmental Track

The university includes many distinguished scientific competencies of faculty members and many enthusiastic and distinguished students at different academic levels and postgraduate programs, as well as many scholarship students on whom the university relies in the development of scientific research for the coming years. Modern research centers are also considered among the factors that support scientific research for all university faculties.

Abir Said Ibrahim Abdelnaby - Polymer Chemistry Professor



Technological Track

Imam Abdul Rahman bin Faisal University is distinguished by its infrastructure, technical systems, administrative and material support, to support and achieve innovation. The university aims to empower innovators and researchers, by allowing researchers to easily present their innovation or patent and receive endless support in all material, technical, and administrative aspects. This empowerment and support is clearly reflected in the size and quantity of patents registered in the name of the university.

Dr. Khaled Al-Issa - Dean of the Deanship of Communications and Information Technology



Humanities Track

Abdulrahman bin Faisal University attached great importance to innovation, promoting the culture of innovation and providing information and scientific assistance to benefit from research ideas, embrace them and turn them into successful projects and applications in order to provide valuable moral and material services that are in the interest of the nation.

Dr. Huda Al-Saeed - Professor at the College of Education,
Educational Foundations Department



Humanities Track



Imam Abdulrahman Bin Faisal University offers many enrichment programs for its employees and the community with the aim of advancement and prosperity and leaving a positive and optimistic impact. One of the most prominent programs that influenced my presentation of the innovative idea at the university is the Shaghaf Medical Program, which inspired by my innovative idea, and exceeded its perceptions and even its target groups .

Khadija bint Salman Al Qurain - Master's degree in Educational Administration and Leadership University Administrative Employee



Health Track



Imam Abdulrahman Bin Faisal University provides the necessary support to its employees by making it possible to participate in competitions related to support and innovation, by receiving proposals and developing them, and communicating with the supporting parties in a way that preserves their rights and opens the doors for development and innovation ... Supporting and wishing us more creativity and innovation.

Anfal Abdullah Al-Faraj - Department of Respiratory Care College of Applied Medical Sciences in Jubail



Technological Track



The university has launched many qualitative strategies and initiatives to keep pace with global development in several fields. It paved the way for all university employees to participate in innovation and contribute to building a university community that learns, thinks, and innovates, as the university was distinguished in spreading the culture of innovation and encouraging innovators through the annual innovation award, which is an indication that our university is taking strides, praise be to God, towards a conscious and empowered environment that contributes to building distinguished national personalities scientifically and skillfully.

Abdul Rahman bin Mubarak Al-Khalidi - Supervisor of student clubs at the College of Computer and Information Technology



Technological Track

Sincere thanks and gratitude to the university administration and its employees for motivating us to develop our skills and for their endeavor to provide suitable opportunities such as this award to promote creative thought and leave a mark in order to develop society.

Maram Abdullah Al, Awami - College of Computer Science and Information Technology:
Computer Information Systems



Environmental Track

Huge thanks and appreciation go to Imam Abdulrahman bin Faisal University and the Agency of Scientific Research and Innovation for their efforts in facilitating patent registration and for their continuous support of the university's graduates.

Arwa Ali Alhashir - Faculty of Science: Master in Genetics



 **Humanities Track**

We extend all our thanks and gratitude to Imam Abdulrahman bin Faisal University for supporting the students of the university on their path towards entrepreneurship and enhancing their spirit of innovation. We extend special thanks to the Deanship of Scientific Research and Innovation for its fruitful efforts in developing the pioneering side of graduates by establishing workshops and programs that help develop their promising projects and guide them to success.

Fatima Mohammed Fahad Alqahtani - Faculty of Arts: English Language Major



 **Engineering Track**

I extend my sincere thanks and gratitude to the College of Design and its professors for supporting us and urging us to participate in the annual Innovation Award, and to everyone who contributed to this initiative and to raising the level of students in the research and academic fields. Imam Abdulrahman has provided a lot of academic activities and support that contribute to transforming innovations from a model or idea into reality.

Ghadeer Ibrahim Al-Aliwi - Faculty of Design: Engineering and Interior Design

 **Health Track**

I received great support from my university to bring my project to the stage of stability and quality, and helped make it a reality, as it had a clear mark in the stages of completion, starting from encouragement and motivation to providing the opportunity to participate in the innovation competition. And I would like to thank the university for embracing the project team, which includes Dr. Isam, the family doctor, the scientific supervisor of the project, and assistants from classmates who had a prominent role in the data collection and content writing stages. It was a really enriching and useful experience in which I got valuable guidance throughout the project. This is the case with our generous university, which has always nurtured talents and provided support to its creative students.

Mohamed Hassan Al, Hamoud - Faculty of Medicine: Medicine and Surgery

Conclusion



Imam Abdulrahman bin Faisal University will continue its march in spreading and promoting the culture of innovation through many fields provided by the university to its employees, so that their innovations see the light and contribute to building a promising future that meets the objectives of our country's vision and improves the lives of the human society.

May God Almighty reward our efforts and bless us in our journey.



Idea done by:

Aisha Alhulaibi

Head of Research Marketing Unit

General supervision:

Prof. Dr. Fahd bin Ahmed Al-Harbi

Vice President for Scientific Research and Innovation

Dr. Kholoud bint Saad Al-Ghamdi

Dean of the Institute of Innovation and Entrepreneurship