SUSTAINABLE
DEVELOPMENT
GOALS

AIR UNIVERSITY

SDG
ANNUAL REPORT
2024

Air University
Sustainable Development Goals

A Message from Our Vice Chancellor

As the Vice Chancellor of Air University, I am proud to share our steadfast commitment to sustainable development. At Air University, we believe that education is the cornerstone of a sustainable future, and we are dedicated to embedding sustainable principles into every facet of our institution. Our efforts reflect our determination to equip our students with the knowledge and skills necessary to address the challenges and to drive impactful change.

At Air University, we have integrated the SDGs into our academic framework to ensure that our students are well-equipped to address the pressing challenges of our time. Our curriculum is enriched with courses that focus on renewable energy, climate action, sustainable urban development, and other critical areas. Through interdisciplinary collaboration, we leverage technology to innovate solutions for complex environmental challenges, ensuring our students are equipped to lead in a technologically advanced and sustainable future. This academic approach not only educates but also empowers our students to innovate and lead in the pursuit of sustainable solutions. Our faculty members are deeply involved in research that pushes the boundaries of knowledge and contributes to global sustainability efforts.

In addition to our academic initiatives, we have made substantial strides in embedding sustainability into our campus operations. We have implemented energy-efficient systems, water conservation measures, and comprehensive waste management programs. Our commitment to green infrastructure includes the installation of solar panels and the creation of green spaces that enhance biodiversity. These initiatives not only reduce our environmental footprint but also serve as practical learning environments for our students, fostering a deeper understanding of sustainable practices.

Air University has established strong partnerships with local and international organizations, governments, and other educational institutions. These alliances enable us to share knowledge, resources, and best practices, significantly amplifying our impact. Together, we are making substantial progress towards the SDGs, demonstrating the powerful role that education and collaboration play in driving sustainable development. Incorporating the SDGs into our university's mission is not just about compliance; it is about making a meaningful impact on the world. By educating future leaders, advancing groundbreaking research, and fostering a culture of sustainability, Air University is contributing to a more sustainable, equitable, and prosperous future for all. I am confident that our continued commitment to these goals will inspire positive change within our community and beyond.

**AIR MARSHAL
ABDUL MOEED KHAN**

A message from AU Director Quality Enhancement Cell

It has been discovered during the past few years that the world has begun to institutionalize sustainable development, community engagement in energy and climate, water conservation, transportation, and research and education programs into their systems or operational procedures. By combining social and environmental dynamics into the decision-making processes, it is more likely to build a sustainable operational framework that is substantial to the environment. The UN Sustainable Development Goals have established standards for all international institutions to embrace best practices and offer a course for the best application of the plans in the future.

In order to develop a strong culture of sustainable development goals and successfully achieve all indicators to globally deal with all networks who are highly involved to make this target achievable, the AU Quality Enhancement Cell is responsible for promoting higher standards of education, research, innovation, teaching, and adoption of new technologies and methods with the collaboration of the concerned departments in the University in accordance with the national agenda for pursuing the UN 17 X SDGs.

In this report, we list a few of the numerous initiatives our university is involved in to help the SDGs be achieved. We are unable to fully describe the outstanding work done by our staff, students, and collaborative partners in the areas of social participation and contribution, performance assessment, student learning, and academic excellence and research. As an appreciation of the many initiatives taking place inside the University, we have instead chosen to highlight a few of them here. These activities notably show our dedication to sustainability and our role in ensuring a more sustainable future for everybody.

Air Cdre (R) AHMED HASSAN

SDGs

AIR UNIVERSITY

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AIR UNIVERSITY ISLAMABAD
GOAL 1: NO POVERTY

1 NO POVERTY

Social Contribution & Participation

Air University's commitment to empowering underprivileged students extends beyond access to education. The university provides state-of-the-art technological resources and infrastructure to facilitate learning and skill development. From computer labs to high-speed internet connectivity, these resources equip students with the tools necessary to compete in the digital age and access employment opportunities in diverse sectors.

In addition to academic support, Air University fosters a culture of research and innovation, thereby enhancing students' employability and entrepreneurial skills. Through collaborations with industry partners and research institutions, the university creates avenues for students to engage in meaningful research projects and gain practical experience. This not only enhances their academic credentials but also equips them with the skills required to address real-world challenges.

The initiatives undertaken by Air University have yielded tangible results in terms of poverty alleviation and social inclusion. By providing access to quality education and employment opportunities, the university has empowered marginalized communities to break free from the shackles of poverty. Moreover, by fostering gender equality and eliminating discrimination, Air University has created a more inclusive educational environment that celebrates diversity and promotes social cohesion.

Research

Air University's commitment to equitable education stems from its mission to nurture talent irrespective of socio-economic backgrounds. Recognizing the disparities prevalent in access to higher education, especially for rural students, the university has prioritized initiatives aimed at bridging this gap. Through targeted interventions and strategic partnerships, Air University seeks to empower marginalized communities and facilitate their integration into the mainstream economy. One of the pivotal initiatives undertaken by Air University is the implementation of an online learning management system (LMS). This platform serves as a catalyst for democratizing access to education by providing flexible and affordable learning opportunities to students from remote areas. By leveraging digital technologies, the university has overcome geographical barriers and expanded its reach to underserved communities.

Performance Assessment

Scholarships and Financial Aid support
AU Sponsored MS & Ph.D. Programs

AU pays back to society through Graduate Research Initiative Program. This program enables the students to take on professional challenges for excellent leadership careers in academia and industry. This scheme offers the following benefits for selected candidates.it has three different schemes accordingly head of departments decides the scholarships based on students' performance.

Educate to Innovate Scholarship Scheme

This scheme offers Full and Partial fee waiver to students with bright academic record Chance to work as apprentice in industry projects after 1st semester for students with bright academic record and relevant skills

AU Need-Based Financial Grant

Through this scheme,AU funds each semester needy students who face financial constraints ranging from 25% to 100% of tuition fee discounts. The range of discounts is determined based on an individual's financial circumstances

AU Merit-Based Scholarship

Air University offers Merit-based scholarships to all outstanding students enrolled in different undergraduate and graduate programs

based on their semester results(a) 1st Position Holder   50% Tuition Fee Waiver, 2nd Position Holder   40% Tuition Fee Waiver and 3rd Position Holder   30% Tuition Fee Waive

PAF Ward concession & AU Employee Concession

AU grants 25% tuition fee discount to PAF Wards and 50% discount to AU Employees and their wards

Ehsaas Undergraduate Scholarship Project (EUSP)

Ehsaas Scholarship program launched in 2019 by the Govt through HEC. Students with combined family income ≤45,000 per month can apply for this scholarship at HEC portal and the scheme is announced every year. The selected candidates would get 10% Tuition fee waiver and Rs. 20,000 per semester stipend.

Fazaia Educations Welfare Scheme (FEWS)

Other than 25% Tuition Fee discount PAF Wards studying at AU campuses can avail additional funding from FEWS ranging from 25% to 100%. They can also apply for Qarz-e-Hasana from FEWS.
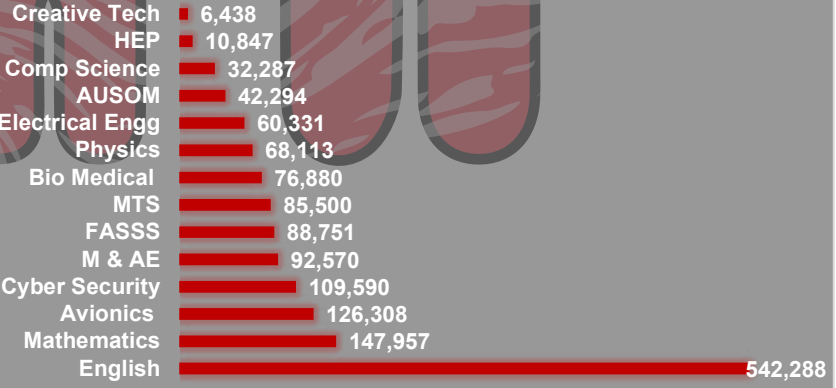
Punjab Education Endowment Fund Scheme (PEEF)

This scheme offers AU students avail 50% of Tuition Fee discount in each semester through PEEF as per the laid down criteria set by the Punjab Govt to sponsor the higher education of deserving students. Max income threshold is ≤ Rs. 30,000 per month

PM Tuition Fee Reimbursement Scheme

Through this scheme students hailing from the less developed areas of Pakistan (Selected areas) can avail of funding opportunities at the Graduate and Postgraduate level from the Higher Education Commission (HEC).

Student Learning & Academic Excellence

Out of 9500 students, more than 5500 students from low-income households received financial aid from Air University Islamabad over the past three years. The University has set a goal of providing low-income students with all of the scholarships offered through these programs. All of the students in this category who get financial aid ultimately earn a university degree. For the purpose of retaining their scholarships, students are expected to maintain a 3.00 CGPA or above during their studies for the continuation of scholarships

Annual Expenditure on Earth Students

Department	Expenditure
Creative Tech	6,438
HEP	10,847
Comp Science	32,287
AUSOM	42,294
Electrical Engg	60,331
Physics	68,113
Bio Medical	76,880
MTS	85,500
FASSS	88,751
M & AE	92,570
Cyber Security	109,590
Avionics	126,308
Mathematics	147,957
English	542,288

AIR UNIVERSITY ISLAMABAD

GOAL 2: ZERO HUNGER

2 ZERO HUNGER

Research

Driving Sustainable Change: Air University's Efforts in Reducing Food Waste for a Better Future

Hunger and food waste represent significant challenges that undermine the well-being of communities worldwide. Air University recognizes the importance of addressing these issues and has implemented a range of initiatives aimed at promoting sustainable food practices and reducing food insecurity. By leveraging its resources and partnerships, the university strives to create a food-secure environment that prioritizes ethical practices and environmental sustainability. Central to Air University's approach to addressing hunger is the effective management of food waste within its campus premises. The university has implemented robust processes for collecting and redistributing leftover food from its cafeterias and events. By partnering with neighborhood non-governmental organizations (NGOs), Air University ensures that surplus food reaches those in need, thereby minimizing waste and alleviating hunger in the local community. In addition to managing food waste, Air University prioritizes green purchasing methods to minimize the environmental impact of its food procurement practices. The university collabo-

rates with regional and sustainable food suppliers, thereby promoting ethical farming practices and reducing the carbon footprint associated with food production and transportation. By sourcing locally and sustainably, Air University ensures that the food served on campus aligns with its commitment to sustainability and environmental stewardship.

Performance Assessment

Air University Food Management Policy and Operations

Air University is dedicated to promoting sustainability and responsible consumption through its Food Management Policy. This policy aims to reduce food waste, foster sustainable food practices, and enhance the overall well-being of the university community. It focuses on minimizing food waste, promoting responsible consumption, and supporting sustainable food systems.. The university recognizes the value of food and aims to raise awareness among the community about making sustainable food choices. This includes considering nutrition, ethical sourcing, and environmental factors when making food-related decisions.

Social Contribution & Participation

Air University's Social Impact: Advancing Zero Hunger through Food Waste Reduction and Community Engagement

Air University's social contribution to the Zero Hunger goal is multifaceted and impactful, encompassing various initiatives aimed at reducing food waste and addressing food insecurity in both its campus community and surrounding areas. Here are some key aspects of Air University's social contribution to achieving Zero Hunger:

Food Redistribution Programs: Air University actively engages in collecting surplus food from its cafeterias and events and redistributing it to those in need through partnerships with local non-governmental organizations (NGOs) and community centers. By ensuring that excess food is redirected to vulnerable populations, the university directly addresses food insecurity while minimizing food waste.

Collaboration with NGOs: Air University collaborates closely with NGOs and community organizations dedicated to addressing hunger and poverty. By leveraging these partnerships, the university maximizes the reach and impact of its food redistribution programs, reaching individuals and families who may otherwise struggle to access nutritious meals.

Education and Awareness: Air University recognizes the importance of education and awareness in driving sustainable change. The university actively promotes initiatives to raise awareness about food waste, sustainable food practices, and the importance of addressing food insecurity. Through workshops, seminars, and awareness campaigns, Air University fosters a culture of responsibility and stewardship among its students, faculty, and staff.

Sustainable Procurement Practices: Air University prioritizes sustainable procurement practices by sourcing food from regional and sustainable suppliers. By supporting ethical farming practices and local economies, the university reduces the environmental impact of food production and transportation while ensuring the availability of fresh and nutritious food options on campus.

Research and Innovation: Air University's commitment to research and innovation extends to the realm of food security and sustainability. The university conducts research projects and initiatives aimed at identifying innovative solutions to food waste reduction, food distribution, and sustainable agriculture practices. By fostering a culture of inquiry and innovation, Air University contributes to the development of effective strategies for achieving Zero Hunger.

Air University Cafeteria

Air University has implemented a comprehensive recycling and composting program, educating staff and students about proper waste sorting and providing clearly labeled bins to divert waste from landfills. Minimize the use of single-use items by opting for reusable or biodegradable alternatives like cutlery, plates, and cups. Encourage staff and students to bring their own containers for takeout or leftovers, reducing waste generation. Promote energy efficiency by using energy-efficient appliances, such as refrigerators, ovens, and dishwashers, in the kitchen and cafeteria. Install LED lighting throughout the cafeteria to reduce energy consumption. Develop an energy management plan with guidelines for staff to minimize energy usage during non-peak hours. Conserve water by installing low-flow faucets, toilets, and dishwashers.

Student Learning & Academic Excellence

In a proactive effort to combat food waste and promote sustainable practices, Air University's student affairs department established the Shaoor Society. This initiative aims to educate students on the critical importance of food waste management and its broader implications. Through a series of engaging workshops and activities, the university endeavors to cultivate awareness not only about national food security issues but also about the impact of individual actions on campus-wide sustainability efforts.

At the heart of the Shaoor Society's mission lies a commitment to aligning its activities with sustainable development goals and addressing fundamental needs within the university community. By fostering a culture of mindfulness and responsibility, Air University seeks to empower students to become agents of change in creating a more sustainable future.

One of the noteworthy achievements of the Air University Shaoor Society is its successful initiative to plant over 500 plants. This endeavor not only contributes to the preservation of the environment but also plays a crucial role in ensuring food security by enhancing local biodiversity and supporting ecosystem resilience.

Through its holistic approach to sustainability education and action, the Shaoor Society exemplifies Air University's dedication to fostering a culture of environmental stewardship and social responsibility among its student body. As the society continues to grow and expand its impact, it serves as a beacon of inspiration for promoting conscious consumption and sustainable living within the university and beyond.

Air University has implemented a robust feedback system designed to continuously improve its food services and meet the evolving expectations of its community. With a remarkable participation rate, reaching over 6500 out of 9000 students, the university demonstrates its dedication to soliciting feedback and fostering a culture of continuous improvement.

The feedback system has proven highly effective in gathering valuable insights into customer satisfaction and the performance of food contractors. Notably, the majority of students expressed satisfaction with the hygienic conditions of the food, underscoring the university's emphasis on cleanliness and food safety. Additionally, more than 80% of faculty and staff reported high levels of satisfaction with the meals provided, indicating that the offerings meet their expectations.

Central to the success of Air University's feedback system are the monthly feedback forms, which enable consistent monitoring and evaluation of food services. By regularly collecting feedback, the university ensures responsiveness to emerging needs and preferences, allowing for timely adjustments and enhancements.

Moving forward, Air University will leverage the insights gained from the feedback system to identify areas for improvement and implement necessary adjustments to further enhance the quality of meals served. Through this proactive approach to feedback and continuous improvement, the university reaffirms its commitment to providing exceptional food services that meet the diverse needs of its community.

SALAD BAR SHAKE & JUICE ICE CREAM & SLUSH CHICKEN CORN SOUP

AIR UNIVERSITY ISLAMABAD

GOAL 3: GOOD HEALTH AND WELL BEING

3 GOOD HEALTH AND WELL-BEING

Social Contribution & Participation

REPORT ON BREAST CANCER AWARENESS DAY 2023

The Department of Community Medicine at Fazaia Medical College, Air University Islamabad organized a Breast Cancer Awareness Day in collaboration with Shaukat Khanum Memorial Trust Hospital and Pink Ribbon, on 2nd October 2023.

The students and faculty of Fazaia Medical College and Air University participated with full zeal to support the cause of generating awareness about prevention of Breast Cancer. All acknowledged the support and mission of Shaukat Khanum and Pink Ribbon.

A session was held in Fazaia Medical College Lecture Hall by an expert team from Shaukat Khanum memorial trust hospital.The main objective was to highlight the importance of community awareness and integration of primary health care to prevent breast cancer with the emphasis on the need of screening, early diagnosis, and prompt treatment of breast cancer to make our society healthy, which was very informative for the students and participants.

 A bake sale day along with other fun filled activities was planned at Air University campus to generate funds. (Pictures of the event are attached)

Students held a procession followed by a walk with placards. An information desk was setup by the students and faculty to collect donations and give away pamphlets and awareness messages to the students and guests. A handsome amount of donation was generated by the students to donate for the breast cancer patients. The efforts of the students was highly appreciated.

Fazaia Medical College, a proud constituent of Air University, conducted an event on fundraising event, "Bake for a Cause." This event was dedicated to supporting patients battling breast cancer and other diseases, embodying the spirit of compassion and community that defines our institution. Participants were encouraged to showcase their culinary talents by preparing an array of delectable baked goods, including cakes, cookies, pies, and more.

All proceeds raised during the event, were given essential support and resources to patients undergoing treatment.

EFFECTIVENESS OF DIGITAL INTERVENTION FOR BETTER MATERNAL HEALTH

Fazaia Medical College, a leading institution dedicated to advancing healthcare innovation, is proud to share insights from its recent study on the effectiveness of digital interventions for improving maternal health. This groundbreaking research, conducted by the college's esteemed faculty and researchers, sheds light on the transformative potential of digital technology in enhancing maternal well-being. Maternal health is a critical global concern, with millions of women facing various

challenges during pregnancy, childbirth, and postpartum periods. Recognizing the need for innovative solutions, Fazaia Medical College embarked on a comprehensive study to assess the impact of digital interventions on maternal health outcomes.

The study involved the implementation of digital platforms and tools aimed at providing timely information, support, and resources to pregnant women and new mothers. These interventions ranged from mobile applications for tracking prenatal care milestones to telemedicine services for remote consultations with healthcare providers.

Air University provides health facilities to staff, students, and faculty members on campus ambulance health insurance card facilities for major injuries and incidents which helps to carry patients to the hospital. It has a 600 bedded teaching hospital affiliated with Fazaia Medical College.

Research

Transforming Healthcare Training: Air University's Tech-Enabled Impact on SDG 3

Air University, via Fazaia Medical College, pioneers tech-driven perinatal depression training trials, aligning with SDG 3. Leveraging online platforms and virtual simulations, it overcomes barriers to education in remote areas, reducing costs and carbon footprint. This approach ensures high-quality training for healthcare professionals in low-resource settings.

Furthermore, Air University promotes green practices in healthcare training, aligning with SDG 3's objective of equitable healthcare access. By embracing technology, it reduces environmental impact while improving training effectiveness. As Air University advances these initiatives, it promotes global well-being by improving healthcare access and resilience in challenging environments.

Assessing Hand Hygiene Practices: A KAP Survey Among Medical Students and Air University's Contribution to Clinical Impact"

Air University conducts a Knowledge, Attitude, and Practice (KAP) survey among medical students to evaluate the clinical impact of hand hygiene practices. This survey aims to assess the level of knowledge, attitudes, and adherence to hand hygiene protocols among students, thereby contributing valuable insights to healthcare practices.

Through this initiative, Air University seeks to understand the effectiveness of hand hygiene education and training provided to medical students and identify areas for improvement. By analyzing survey data, the university can tailor educational interventions and reinforce the importance of hand hygiene in preventing healthcare-associated infections.

Air University's commitment to promoting hand hygiene among medical students underscores its dedication to patient safety and quality healthcare delivery. By fostering a culture of compliance with hand hygiene protocols, the university contributes to reducing the risk of infections in healthcare settings and improving overall clinical outcomes.

Performance Assessment

AU Healthcare Facilities

Air University provides health facilities to staff, students, and faculty members on campus ambulance facility for major injuries and incidents which helps to carry patients to the hospital.It has also given a large number of health insurance cards facilities to its staff and faculty members

Sports Participation Physical and Mental Fitness

The Sports Department of Air university is well equipped with sports gear for the training of Intervarsity sports events. It has a team of qualified and dedicated sports staff who is highly experienced with the methods of systematic sports and physical training.

AU Fitness Centre

Air University constructed a fitness center with commercial Treadmills, sit-up benches , Olympic flat benches, Leg press machines, other equipment to promote healthy settings.

Student Learning & Academic Excellence

AU Policy for Differently abled students

Because AU University believes in offering equal opportunities to all students, it has established a policy for differently abled students to ensure that they are treated equally.

Student Psychological counseling

Air University has established a Student Psychological counseling policy to safeguard students' well-being and to address their emotional, physical, and moral difficulties timely. A trained full-time clinical psychologist is hired for this purpose.

AIR UNIVERSITY ISLAMABAD
GOAL 4: QUALITY EDUCATION

4 QUALITY EDUCATION

Social Contribution & Participation

CPEC Center of Excellence at Air University School of Management

It aims to understand how the contribution of Export Processing Zones EPZs toward human welfare, in the post-CPEC scenario, can be maximized in Pakistan.

National Centre for Cyber Security (NCCS) Air University Islamabad

It will create a significant impact on Cyber Security Research and Development in Pakistan and promote the R&D Culture in specialized areas of Cyber Security.
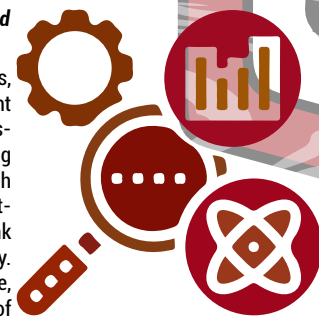
Office of Research, Innovation, and Commercialization (ORIC)

ORIC has self-adopted its mandate to enhance the environment for all research activities and scholarship schemes by developing the university's strategic research directions and policies.

International Cooperation Office (ICO)

Through this network, more than 200 students have been sent to study abroad on scholarships to receive the greatest education possible.

Research Journals Forums

Air University has partnered with these journals to give its students the chance to publish high-quality papers in the Journal of Business & Economics, Journal for graduate research Erevna: Journal of Linguistics, and Literature corporum: journal of corpus linguistics.

Research

Promoting Quality Education: Strategies and Initiatives

Air University Islamabad's Humanities, Education, and Psychology department prioritizes high-quality instruction by addressing weaknesses and fostering strong student-teacher interactions. Through interactive teaching techniques, the department encourages students to think independently and engage collaboratively. These strategies positively impact cognitive, emotional, and motivational aspects of learning, fostering interest in academic subjects, enhancing motivation, and developing communication and teamwork skills. This commitment ensures inclusive and equitable quality education and promotes lifelong learning opportunities for all.

The Impact of Artificial Intelligence on Student Education: Balancing Innovation with Creativity

Air University has embarked on an initiative to explore the role of artificial intelligence (AI) in students' education and studies, while also considering its potential impact on creativity. The university actively seeks AI-related material for incorporation into student research projects and other endeavors, aiming to inspire innovation and foster fresh ideas. As part of this initiative, Air University has formed a dedicated committee and implemented a policy framework to oversee the ethical and effective use of AI by students in their work. Furthermore, the university emphasizes the importance of students leveraging their original ideas in conjunction with AI tools to address pressing global challenges, such as mitigating the impacts of climate change both at the international and domestic levels.

Performance Assessment

Our Academics

Air University has different departments to run the academic undergraduate and postgraduate programs and ensure that it should meet the criteria of national and international standards. Our university is offering more than 700 courses and more than 70 programs in vast disciplines.

Research Workshops

Students are provided an opportunity to augment their learning through practical work in the modern laboratories of all engineering departments.

Computing rooms

We provide high-quality IT services to university students, faculty, and staff members. We have Fifteen (15) computer labs and one (1) language lab which is equipped with 510 high specs desktop computers.

Library Access to students

The Air University Central Library aims to enrich the learning, teaching, and research Programs of the University by providing timely access to high-quality scholarly information and learning material in a variety of formats.

Institutional Performance Evaluation at University Level Audit

Air University conducts an annual institutional performance evaluation to assess resources, staff, faculty, students, and infrastructure. Assisted by an external evaluator from another organization, the evaluation identifies strengths and weaknesses to guide improvements.

Programs Audit

We evaluate the programs performance each year to identify any unrecognized or unresolved issues in accordance with regulatory and accreditation bodies because Air University believes that all programs at the undergraduate, graduate, and doctoral levels should be uniform.

Progress of the Running Programs at University

The graphical representation showcases the currently streaming program across the main campus and sub-campuses of the university.

Student Learning & Academic Excellence

Learning Management System

A learning management system is a software application for the administration, documentation, tracking, reporting, automation, and delivery of educational courses,. There are 4 integrated modules on LMS i.e MS Dashboard, LMS Students, Class Room and IT Helpdesk Services.

Google Class Room Evaluation

Our university established the Google Class Room mechanism to assist students and faculty from rural areas, along with some requirements, such as requiring faculty to conduct live sessions with students while using all available resources, distortion-free video, and audio calls. Additionally, one auditor has been assigned to monitor the performance of the students and teachers and their level of engagement in each department.

Sustainable Course in Curriculum

Air University's curriculum includes 700 sustainable educational courses designed to help students expand their potential and study more effectively and provided the US $ 2,698,505.68 in sustainable research funds.

Student and Faculty Feedback Mechanism

All faculty members and students are required to conduct course and faculty evaluations periodically. The teacher's evaluation is done at the end of each semester through student feedback and the performance of each faculty member is shared with the Deans and the Chair department which is disseminated to respective faculty members.

AIR UNIVERSITY ISLAMABAD

GOAL 5: GENDER EQUALITY

5 GENDER EQUALITY

Social Contribution & Participation

AU Professor Dr. Zafarullah Koreshi

In March 2022, our esteemed and honorable Dean of Graduate Studies, Professor Dr. Zafarullah Koreshi, unveiled an extraordinary contribution to the field of Nuclear Engineering. The launch of his book, titled "Nuclear Engineering - Mathematical Modeling and Simulation," marks a significant milestone in the realm of academic literature. This comprehensive resource caters to students pursuing Bachelor's, Master's, and Ph.D. programs in Nuclear Engineering, while also serving as a valuable tool for professionals seeking a deeper understanding of diffusion, transport, and Monte Carlo simulation for neutrons and photons.

Celebrating Triumphs: Air University Students Shine at Youth Robo Tech Competition 2022

The spirit of innovation and technical prowess shone brightly as students from Air University achieved remarkable success at the prestigious Youth Robo Tech competition held on January 22-23, 2022, at UET Peshawar. Their exceptional skills and dedication propelled them to win an impressive six awards across various modules, leaving a lasting impact in fields such as robotics, project exhibition, and ambassadorship

Research

Air University recognizes the importance of gender equality in maintaining a balanced representation of both male and female professionals across industries. Our management sciences experts have conducted research highlighting the need to promote female entrepreneurs in all sectors. To address this, policymakers and academics must collaborate on affirmative action-driven initiatives aimed at empowering women professionals and achieving gender parity in the workplace. In alignment with this goal, Air University has actively appointed women to key leadership positions to promote diversity and inclusion. Through these efforts, we aim to foster a workplace culture that values social contribution and encourages active participation from all members, regardless of gender.

Women in STEM

Women, the disabled, and minorities are especially encouraged to apply in any discipline at Air University. Men and women, people of all ages, sexual orientations, countries, religions, and beliefs are all welcome to apply to Air University, which beliefs in stimulating the positive value of variety, promoting equality, and challenging unfair prejudice. It has stated expressly in its selection and recruitment process policy that it will hire the best candidate for the job on the basis of merit. Faculties of those subjects where females are less, in those departments' women are encouraged to participate and joined the departments. Our 191 senior academic female staff members have been assigned to various educational departments.

Performance Assessment

Equal Opportunity Policy

Air University follows an equal opportunity policy for all students, regardless of gender. We have admission policies and academic requirements in place to help with this. It has created a platform for women to flourish in the educational sector according to their own preferences and make career decisions.

Daycare Center

Air University has a Daycare Center accessible to all female employees. Female students with young kids are also accommodated in case of space availability. It supports women's participation and has a policy of paid maternity leave for 3 months.

Gender Discrimination

Our University is committed to making sure that fair and effective procedures and processes are implemented and adhered to when selecting and deploying people to fulfill organizational needs. All potential candidates will be assessed according to their skills, knowledge, qualifications, and capabilities. Regard will not be given to factors such as gender, marital status, race, religion, physical impairment, or political opinions. Air University places a strong emphasis on merit-based promotions for its personnel and academics. It assesses them fairly depending on their academic performance.

Student Learning & Academic Excellence

Alisha Naqvi

During my four years at Air University, I led three international student chapters, organized 60+ webinars, achieved Gold Microsoft Learn Student Ambassador rank, secured SPIE outreach grant, won International Day of Light challenge, served as student ambassador for 10 Pearls and RemoteBase, captained cricket, futsal, and basketball teams, and made a positive impact on the student community.

Fatima Khan

Fatima Khan completed her Bachelor's in Business Administration (Marketing) in 2022. She is currently a Digital Marketing Assistant at Coreware. During her time at Air University, she started as a member of Air Media Club (AMC) and eventually became its President. She organized Media Week in 2022 and initiated a Support Group for Air University students.

Ahmer Zaman

As a representative at Shell Eco Marathon and a key stakeholder in Air University's Writers' Club, I'm grateful for the opportunities provided by the university. I led the launch of "Likherature" e-magazine, served as a delegate for VOB, headed AirTech, and received the Vice Chancellor's Recognition Award. Professionally, I worked with Reebok, Philips, and Rinnai as a Project Lead and currently hold the role of Automation and Product Specialist at a US-based SaaS Agency.

Sardar Osama Sabir

I have achieved academic and professional milestones, including completing matriculation from Pakistan International School Jeddah and earning an F Sc. from Army Public School, P.M.A, Kakul. I obtained a bachelor's degree in Mechatronics Engineering from Air University, where I received the Vice Chancellor's Letter of Recognition in 2019. I co-founded 'Likherature' e-magazine and served as President of Air e-Nexus 2020. I also led the Writer's Club during the 2019-2020 academic year.

Air University Sub Campus: Kamra

Mujtaba Ahmad and Khaqan Umar, students from the Electrical Engineering Department at Air University Kamra Campus, created the "Air Hawk RC Plane" for the DBFC Competition at GIKI. Essentially a surveillance UAV was the purpose of this plane's design. He was given an award by the administration of Air University in recognition of his significant contribution and aptitude.

AIR UNIVERSITY ISLAMABAD
GOAL 6: CLEAN WATER AND SANITATION

6 CLEAN WATER AND SANITATION

Social Contribution & Participation

Work Shop on Building Water Saving

Air University Islamabad, a workshop on Building Water Saving Devices was held. The Robotics & Automation Society at Air University created the first Smart Tap prototype. The prototype was well received, and the university administration requested that it be used in the ablution area and washrooms. Scrap materials were used to construct the body and all of the building components. Discarded dispenser bottles and damaged PVC pipes were used for the main body. This system is suited for use in underserved communities.

Research

This research analysis provides information about the current state of sanitary facilities and access to clean water at the university level. Even though there is

generally access to clean water and adequate sanitary facilities, there is always space for development. To provide improved water and sanitation facilities on campus, it is crucial to raise awareness, encourage responsible water use, and solve infrastructure and maintenance issues. Universities has built a healthier and more sustainable environment for their staff, faculty, and students by giving these areas priority.

Performance Assessment

Water Efficient Appliances Usage

Recognising the need of water conservation, Air University has taken aggressive steps to solve water waste issues. Monitoring water use and ensuring proper use of hand-washing faucets has been given to devoted restroom attendants. A specialised department is responsible for the upkeep and repair of the equipment used for the water supply and responds quickly to any problems. Additionally, the university is dedicated to implementing cutting-edge water-saving technology to better save water supplies. Currently, automatic faucets, flushes and dual flush systems are present in 75% of the university's lavatory facilities, which helps to cut water usage. Furthermore, a lot of the restrooms and toilets on the campus have had sanitary technology that encourages water efficiency installed.

Provision of Safe Drinking Water at Air University Islamabad

At Air University Islamabad, safe drinking water is regarded as a fundamental human right, and ensuring its provision is a top priority. In accordance with Pakistan's National Drinking Water Policy and to accommodate the growing student body, faculty, and staff, the university has constructed a state-of-the-art filtration facility. This facility undergoes regular monitoring and sampling to guarantee the purity and quality of the drinking water supplied on campus.

To oversee the proper functioning of the water filtration system and to minimize waste, the university has appointed a designated focal point. This individual is responsible for ensuring that everyone, especially marginalized groups, has access to safe and clean drinking water at all times.

Additionally, the institution conducts comprehensive water quality checks every six months, consistently yielding positive findings. Through these proactive measures, Air University provides its community with access to filtered water at a rate of approximately 7,400 liters per hour. This commitment to providing safe drinking water underscores the university's dedication to the health and well-being of its students, faculty, and staff.

Water Recycling Program

At the new South Campus, Air University has implemented a comprehensive water recycling program to sustain a vast green belt and preserve the green areas of the campus. This initiative includes the establishment of procedures for water conservation and the utilization of rainwater channels to maintain the grass and green fields. Regarding wastewater management, the university collects wastewater from the sewerage lines, which consists of two types: water containing solid particles and water designated for plantation after undergoing a small treatment process. The water containing solid particles is directed to a septic tank for further processing and clearance, ensuring efficient wastewater management practices are adhered to.

University's Water Security

Air University has outlined all the requirements in the water policy that must be met, for instance., making sure water is used effectively every day by utilizing the economy mode, filling the dishwasher before using it, shutting off the faucets fully, and, when available and suitable, using the half-flush option on the toilet, etc.

Water Leakage Issue

The resident engineer at Air University keeps track of water leaks to find trouble spots and cut down on water waste. Routinely inspect plumbing systems to find leaks and quickly correct them, Pressure-reducing valves were installed in order to maintain ideal water pressure and avoid pipe bursts. To reduce water usage and potential leaks, water-saving faucets, showerheads, and toilets were installed. Sophisticated sensors and leak detection systems were used to find leaks quickly and stop major damage.

Student Learning & Academic Excellence

Students Recycling Contest

The proactive involvement of students in recycling plastic bags and bottles is a crucial step towards mitigating plastic pollution in the university's canals. By addressing this issue, students are helping to maintain a clean and functional water system, protect local wildlife, and ensure a sustainable future for the university community. The success of this initiative demonstrates the power of collective action and the importance of environmental responsibility.

• Plastic pollution is a growing concern that affects various ecosystems, including the university's canal system. Improper disposal of plastic bags and bottles can lead to severe environmental and infrastructural issues. Here, we detail the specific problems caused by plastic pollution in the university's canals and the broader implications for the community.

When plastic bags and bottles accumulate in the canals, they obstruct the natural flow of water. This blockage can cause several problems:

• The accumulation of plastic debris can create blockages, preventing water from flowing freely through the canals. This can result in water backups, which might overflow onto surrounding areas.

• During heavy rainfall or storms, clogged canals are unable to handle the increased water volume, leading to flooding. Floodwater can cause significant damage to campus infrastructure, landscaping, and buildings.

• Clearing blockages caused by plastics requires significant effort and resources. Maintenance crews need to regularly clean the canals, diverting time and resources from other important tasks. Plastic pollution not only obstructs water flow but also contaminates the water, leading to several environmental and health concerns:

• Plastics can leach harmful chemicals into the water over time. These chemicals, such as phthalates and bisphenol A (BPA), can be toxic to both humans and wildlife.

• As plastics break down, they form microplastics—tiny plastic particles that are difficult to remove from water. Microplastics can be ingested by aquatic organisms, entering the food chain and potentially affecting human health.

• Contaminants from plastic can degrade overall water quality, making it unsafe for irrigation, recreation, and potentially even affecting the campus water supply.

Clogged canals due to plastic waste create several environmental hazards that can impact the university community:

• Plastic debris can alter habitats for aquatic and terrestrial wildlife, leading to reduced biodiversity. Animals may ingest or become entangled in plastics, causing injury or death.

• Stagnant water caused by blockages provides an ideal environment for mosquitoes and other pests. This can increase the risk of vector-borne diseases, such as West Nile virus and malaria, affecting the health of the university community.

• The presence of plastic waste in water can promote the growth of harmful bacteria and pathogens. Contaminated water can pose direct health risks to students, faculty, and staff who come into contact with it.

AIR UNIVERSITY ISLAMABAD

GOAL 7: AFFORDABLE AND CLEAN ENERGY

7 AFFORDABLE AND CLEAN ENERGY

Social Contribution & Participation

Renewable Energy Resources at Air University

Air university has Installed a Renewable energy resource whose capacity is 250Kva (235Kw).

It will produce an approx.290, 000 KwUnits per year as well as our 200Kw load will be transferred to this system. It is a Net Metering system that will transfer energy to WAPDA when the university is closed and energy resources are not consumable then production will automatically shift to WAPDA it is also beneficial for our country. Now Approx. 13% of Energy has been produced by Renewable energy means at Air University.Smart building classrooms were built by Air University, and they are housed in the FMC Basement and have a covered area of about 1000 square feet. The students' learning is greatly aided by the abundance of smart tools in the smart classroom. Encouragements specifically for energy-efficient appliances. Lights, air conditioners, and LEDs are all completely energy-efficient and have low energy consumption in this classroom.

Energy Management
Smart Lighting

LED illumination actuated by motion sensor to save electricity. HVAC optimisation includes the use of smart thermostats and occupancy sensors to ensure effective heating and cooling.Solar panels can be integrated to utilise renewable energy sources.Real-time energy monitoring systems should be implemented for proactive management.

Safety and Security

RFID cards or biometric access for secure admission are examples of smart access control.

Surveillance Systems: For increased security, use high-definition IP cameras with facial recognition.

Emergency reaction: IoT-enabled emergency alert systems for quick reaction in times of crisis.

Enhanced Learning Environment

Smart boards, IoT gadgets, and virtual reality sets for interactive learning are examples of interactive classrooms. Implement IoT-enabled collaborative spaces with wireless connectivity and smart displays. Personalised Learning: Tailor learning experiences based on student performance data using AI algorithms.

Operational Efficiency

Predictive Maintenance: Use IoT sensors and artificial intelligence to predict and avoid equipment faults.

Resource Optimisation: Use smart scheduling in classrooms to maximise space utilisation.

Automation of everyday operations: Use IoT devices to automate everyday operations like cleaning and maintenance.

Sustainability Initiatives

Implement IoT sensors to monitor waste levels and optimise pickup schedules in waste management.

Water conservation measures include smart irrigation systems and leak detection sensors.

Green Building Design: Incorporate environmentally friendly materials and practises into new constructions and renovations.

Data Analytics and Monitoring

Centralised Dashboard: Set up a centralised monitoring system to analyse real-time data.

Data-Driven Decisions: Make informed decisions regarding energy usage, space utilisation, and resource allocation using data analytics.

User Feedback: Use IoT-enabled interfaces to collect feedback from students and staff in order to continuously enhance the smart building system.

User Training and Engagement

Training Programmes: Hold training programmes for students and staff on how to use smart building features successfully.

Raise Awareness: Through workshops and campaigns, raise awareness about the benefits of smart buildings. User Support: Provide specialised support channels for dealing with user issues and feedback. Air University can establish a technologically modern, energy-efficient, and sustainable campus environment by applying these measures, which will improve the overall learning experience and operational efficiency.

We motivate the Students, faculty members, and staff to use hybrid and electric Vehicles. Rideshare is designed to encourage commuters to adopt healthy and sustainable transportation options. The service, which has won recognition from UN Environment as part of a push to promote low-carbon lifestyles, also helps cut congestion and pollution.

Work Shop on Building energy saving systems

Air University, an automation workshop was held for students to design an indigenous system to save electricity in household appliances. A pedestal fan was operated during the operation. It only turns on when it detects human presence nearby. The Robotics &
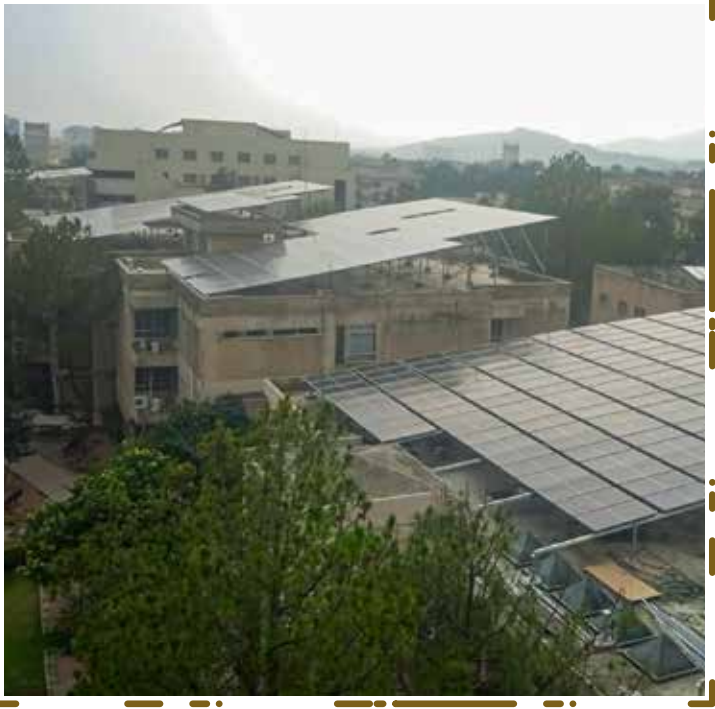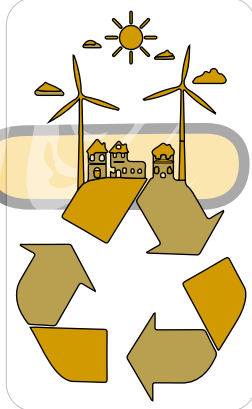
Automation Society of Air University organized this activity

Workshops for Introducing Energy-related Technologies to School Students

Air University helps school students get acquainted with, and gain knowledge in the field of sustainable energy by conducting different workshops, experiments, and activities

Research

Transforming Traditional Buildings: Air University's Smart and Sustainable Renovation

Urbanization and climate change necessitate transforming traditional buildings into smart, sustainable environments. Air University has renovated its facilities to integrate advanced technologies, promoting sustainability, enhancing occupant well-being, and optimizing resource management. The project reduces greenhouse gas emissions through energy-efficient systems and renewable energy sources while using sustainable materials to minimize environmental impact. Resource conservation is achieved via intelligent water management, energy-efficient lighting, and HVAC systems, resulting in economic benefits for owners and tenants. Occupant well-being is improved with advanced systems that monitor and control indoor environmental quality, enhancing thermal comfort, lighting, and air quality, which in turn boosts health and productivity. The integration of AI and ML enables real-time data analysis, predictive maintenance, and optimized energy usage, enhancing efficiency and reducing downtime. IoT sensors collect data on environmental conditions, facilitating dynamic adjustments and cohesive system integration. An intelligent management system unifies monitoring and control of operations, optimizing lighting, climate control, security, and access. Ongoing research explores new applications for AI, ML, and IoT in building management, focusing on energy storage solutions, adaptive learning algorithms, and innovative construction materials.

Performance Assessment

Elements of Green Building

All buildings are well ventilated and built to support energy saving with coolant walls (thick walls). The solar system is being installed to decrease reliance on electricity. AU Kamra sub-campus has installed a 250 KW (extendable to 500 KW) Solar set-up. To promote the cause of Green Campus, it would be dovetailed with Sewage Treatment, Solar Agriculture, Rain Water Harvesting, etc.

University Investments

The greenhouse emission policy at Air University was created to combat air pollution and harmful chemicals that are harmful to human health as well as to lessen the severity of climate change

Austerity Measures

It is the major duty of each department attendant to turn off all the appliances when faculty, staff, and students leave their offices and classrooms. It will aid in bringing down the exorbitant price of electricity.

Student Learning & Academic Excellence

Sustainable Course

In its undergraduate and graduate curricula, Air University offers more than 35 sustainable courses from introduction to environments to resource management to educate students about renewable energy sources and their significant impact on climate change.

Smart and Sustainable Living Environment

Our research team has worked on various projects, including the development of; Energy Monitoring, Control and Conservation Systems, Green Construction of Smart Buildings for Sustainability, Smart agriculture systems, and an agricultural robot for performing precision operations like seed dispensing, on-spot irrigation, and on-spot pesticide spraying and low-cost solar-powered Automated Irrigation System.

Automated Smart Home Systems

Home automation is the automatic control and monitoring of household appliances and house features like doors, windows, fans, and so on. This system improves the standard of living at home, saves energy and money and it also provides support to elderly and disabled people in the home.

Solar Powered LED Smart Street Lighting System

It automatically controls the brightness of the LED lamp depending on a particular time of day, especially in cases where full-level illumination is not needed, thus reducing power consumption.

Energy Saving in School Buildings in Pakistan

Building energy simulations were also carried out using TRNSYS© software for validating and comparing the actual energy consumed and optimal energy consumption resulting from building energy simulation of the existing and re-designed building.

AIR UNIVERSITY ISLAMABAD
GOAL 8: DECENT WORK AND ECONOMIC GROWTH

8 DECENT WORK AND ECONOMIC GROWTH

Social Contribution & Participation

Faculty Professional Development

Air University includes two satellite campuses, four component institutions, and five affiliated colleges. Every year, Air University's ongoing professional development offers more than 120 training sessions in a variety of national and international courses to help staff and faculty improve their professional abilities and advance their careers for a brighter future.

TechHighEd Pakistan Smart Higher Education: Trainings, Transformations, Traps

The Conference revolved around the themes of Technologies in Teaching, Assessment and Learning, Digital Classroom and Social Integration, Simulations in Education, and Human Resources in Education Technology.

Air University Career Fair' 2024

Air University's Career Fair 2024, organized by the Placement and Alumni Affairs team on March 07, 2024, was inaugurated by Air University Vice Chancellor Air Marshal Javaid Ahmed, HI (M) (RETD.) , and Registrar Air Cdre (R) Abdul Wahab Motla, alongside distinguished guests from the Federation of Pakistan Chambers of Commerce & Industry Mr. Zahid Maqbool and Mr. Karim Aziz Malik. More than 60 companies from sectors like an array of industries including Ed-Tech, Education, Healthcare, Hospitality, Medical Equipment Manufacturing, Oil & Gas, Real Estate, Renewable Energy, Textile Industry, Airline & Aviation, Banking, Engineering, NGO, Research, Consultancy, HR Services, Telecom, and IT/Software participated in the event. Companies like Bank Al Habib Limited, Askari Bank, Airblue, Menzies-RAS, Pakistan Exploration (Pvt.) Limited, Softoo, Sybrib IT, Cybernet, Huawei, Kohinoor Textile Mills, Nayatel, Prismware, AKSA-SDS, and Teach For Pakistan enriched the event, providing students with valuable insights and opportunities in various sectors.

Research

The relationship between training and workers' job satisfaction has been thoroughly examined by our researchers, with a focus on how it relates to pay, job duties, and interpersonal relationships. The results

show that it is critical to offer employees training options that are customized to their skill level and job requirements.

Performance Assessment

AU Workload Policy

Air University has a policy for mapping faculty workload to manage the human resource in each department and follow the rules of regulatory/accreditation bodies.

AU Honorarium Policy

The development of a top-notch academic and administration culture is a crucial part of AU's purpose. We reward our personnel with honorarium certificates to inspire them, depending on their successful performance.

AU Best Teacher Award

The Best Teacher Award have been given to Dr. Noman Naseer from the Mechatronics Department, Dr Asghari Masood from physics and and Dr Ahmed Jalal from computer science department in recognition of their outstanding contribution to teaching and excellence.

Faculty Course Evaluation System

The faculty qualification for teaching a course is ensured by the departmental academic committee. The Chair department has informal interaction with each member and courses are allocated to the faculty members on the basis of their expertise in their respective areas. At the end of every semester, students are asked to evaluate the performance of faculty for each course through a student evaluation questionnaire form.

Flexible Education Enhancement Pathways

The management of Air University places a high premium on helping its faculty members advance their qualifications at the national or worldwide level.

AU Corporate Social Responsibility

Air University School of Management's Corporate Social Responsibility (CSR) Policy sets out the guiding principles which facilitate the organization in fulfilling its core mission.

AU Faculty and Staff Promotion Policy

The Promotion Board is presented with information regarding the promotion criteria and policy before receiving briefings on each of the faculty member's cases. However the promotion of staff members is based on their experience, credentials, and contributions to the welfare and advancement of the university. On advancing the workforce to the required level, there are no obstacles or gender biases.
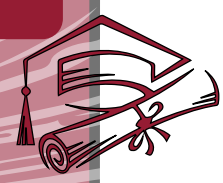
Student Learning & Academic Excellence

Gender Equality: Strength has no gender

Our Female student at Air University Kamra Sub Campus was chosen to be the club's leader because she was passionate about making a difference, fostering communities, and acquiring new technologies.
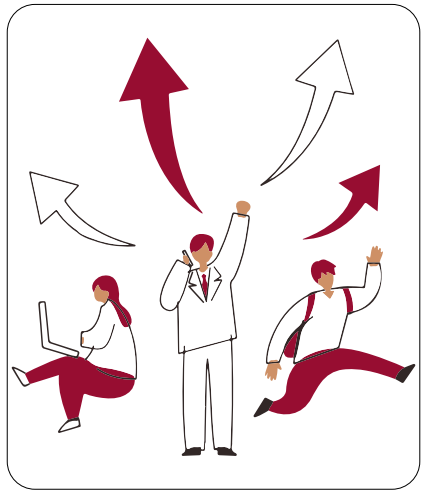
Women in STEM

According to the data, Air University has a significant proportion of female students who are majoring in STEM subjects. This has illustrated the progressive approach to the university and society's welfare.

Air University Champion Trophy : Breaking down gender barriers

The Air University Champion Trophy encourages both male and female students to take an active part in a variety of disciplines. The competition establishes a fair playing field where students may demonstrate their abilities and passion regardless of their gender by offering equal opportunities.

Product Design and Development for Amazon

We always believe that the finest motivating speakers, regardless of gender, can bring out the best in the students, staff, and faculty members. Anyone who can do this is always welcome to join the team. We invited Miss Fiza Khalid to speak as a motivational speaker since she was an expert in e-commerce and a certified trainer for Ali Baba's business-to-business (B2B) in Pakistan. She addressed the complicated process of how to launch a new product on Amazon.

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Comsats Business Case Competition (CBCC)

In a case study competition organized by Comsats on May 24 and 25, 2023, one of our Female BBA students from Air University's school of management took first place.

AIR UNIVERSITY ISLAMABAD

GOAL 9: INDUSTRY, INNOVATION, AND COMMERCIALIZATION

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Social Contribution & Participation

AirTech 24 represents our dedication to advancing aviation technology. A significant area of research is Unmanned Aerial Vehicles (UAVs), also known as drones. Our work includes developing UAVs for various applications such as surveillance, disaster management, and delivery services. Students gain expertise in aerodynamics, control systems, and navigation technologies.

Air University's engineering programs emphasize sustainability. From renewable energy systems to green building technologies, our curriculum integrates principles of sustainable design and environmental stewardship. Students are trained to develop solutions that minimize ecological impact and promote resource efficiency. We are at the cutting edge of robotics and automation, fields that are transforming industries worldwide. Our students engage in designing and building robots for applications ranging from manufacturing and healthcare to agriculture and space exploration. The emphasis is on creating systems that improve efficiency, accuracy, and safety.

AU Business Incubator Center

Air University Business Incubation Center (AUBIC) under AUORIC department is offer a venue for the pioneering ideas of our students, faculty and Alumni but also facilitate the incubation of new enterprises with innovative technologies by providing them with physical, technical and networking support and services.

Research Funding Opportunities

In order to facilitate our students and faculty in hunting for the best research grant opportunities particular to their expertise, here is a comprehensive list categorized separately under the heads of National and International opportunities for your convenience.

Sponsored/ Funded Projects

All the projects undertaken from 2011 onwards were mostly sponsored by the funding agencies such as HEC-TDF, HEC-NRPU, HEC-SRGP, PAF, PAC Kamra, NESCOM, IGNITE, International (UNICEF), US Embassy, USDA, NSF, US Science Foundation, UK,CANADA Embassies and more.

Training on KAMYAB Jawan on Digital Marketing

To promote the understanding of digital marketing, Air University held a workshop for students, employees, and teachers on the topic. We conducted a series of in-depth training workshops on digital marketing to provide our students, instructors, and staff with the necessary information and abilities. These seminars are designed to equip participants with the knowledge, skills, and resources they need to succeed in the digital world and have the greatest possible impact.

Gaming Conference

Air University conducted the gaming conference for the students to celebrate the vibrant world of gaming and provide a platform for students to explore, learn, and connect with like-minded individuals. This conference aims to bring together gaming enthusiasts, industry professionals, and aspiring game developers to delve into the immersive world of gaming and unleash their creativity and passion. Get ready to level up your gaming experience.

Research

Innovative Behaviors

Job creation and innovation are more closely related to economic expansion and knowledge sharing between coworkers or within organisations fosters social collaborations, a robust ecosystem for new ideas, and serves as a bridge for interdisciplinary research and commercialization.

AU Digital World

Air University Islamabad's department of computing and artificial intelligence has deeply and critically examined the method for protecting the misuse of the data through the medium of using digital technology which has become a serious issue globally.

AU Smart Devices Security

We focused on security analysis of Android OS, customization of Android OS with security enhancements, addressing privacy concerns of users, that includes securing files, folders, pictures, gallery and sending of usage statistics to Google and providing strong user control of device sensors i.e. GPS, WiFi, Mobile Networks, Camera, Mic etc.

AU Network Cyber Defence

The research would target analysis of network log information using advanced machine learning techniques, effect analysis of network security policies on a large network, detection and prevention of advanced cyberattacks.

Performance Assessment

Job Career

The placement and Alumni Affairs office of Air University is responsible for seeking internship and employment opportunities for its students and alumni. It also serves as a bridge between the Alumni and the University.

AU Industrial linkages

AU established the International Cooperation Office and Office of Research, Innovation, and Commercialization. In order to arrange internships, trainings and workshops, field trips to industry and research institutes, establish industrial links

Protection of Intellectual Property Rights

We place a high priority on the protection of intellectual property rights, urging scientists and inventors to submit patent applications and copyright requests for their creations.

Student Learning & Academic Excellence

AU Student Exchange Program

AU team comprising of 11 students from various departments of the our university participated in Erasmus+ student Exchange program at Anadolu University Eskisehir, Turkey in spring semester.

Envision the Future, Enabled by AI: Revolutionizing the Way We Think and Work

Air University (AU) is at the forefront of establishing and expanding the artificial intelligence (AI) industry in Pakistan, aligning with global trends. With a strong focus on addressing the unique challenges of Pakistan and fostering knowledge-based economies, AU aims to become a leading center for AI innovation and scientific research. To accomplish this, AU has introduced comprehensive degree programs at the undergraduate (BS), postgraduate (MS), and doctoral (Ph.D.) levels, specifically dedicated to AI studies.

In addition to offering specialized AI degree programs, AU recognizes the interdisciplinary nature of AI and its potential to revolutionize various fields. Hence, AI is integrated into different departments at AU, fostering collaboration and driving innovation across disciplines. Departments such as Electrical and Computer Engineering, Mechatronics and Biomedical Engineering, Creative Technologies, Cyber Security, Computer Science, Strategic Studies, and Fazaia Medical College work together on research and development projects, leveraging AI in a multidisciplinary capacity to create groundbreaking solutions.

Collaboration in AI-related research at AU encompasses a wide range of areas, including computer vision, biomedical

signal and image processing, health informatics and rehabilitation, medical imaging, human behavior cognition and understanding, precision agriculture, remote sensing, big data analytics, robotics and automation, augmented and virtual reality, gaming and multimedia, information security and person identification, access control, surveillance, and authorization, natural language processing, and brain-computer interface. By exploring these domains, AU aims to address critical societal challenges and drive technological advancements in Pakistan.

To foster knowledge dissemination and create awareness about the applications of AI in diverse fields, AU regularly organizes workshops and seminars. These events provide a platform for students, researchers, and academicians to learn and collaborate, fostering a culture of AI innovation and research within the university community. By nurturing talent and promoting AI awareness, AU aims to contribute significantly to the growth of the AI industry in Pakistan and its positive impact on society.

Through its comprehensive AI degree programs, interdisciplinary collaborations, and knowledge-sharing initiatives, AU is actively shaping the future of AI in Pakistan. By nurturing a generation of AI experts and conducting groundbreaking research, AU is driving innovation, fostering economic growth, and positioning Pakistan as a global player in AI technology and development.

AIR UNIVERSITY ISLAMABAD

GOAL 10: REDUCED INEQUALITIES

10 REDUCED INEQUALITIES
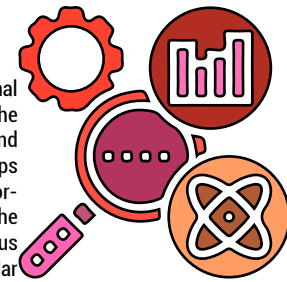

Social Contribution & Participation

AU Believes in Diversity
Diversity is embraced by the AU Cultural Society Club as a cornerstone of its operations. The group encourages students to respect and enjoy the diversity of diverse cultures and origins through activities and initiatives that highlight various cultural practices. The group fosters understanding, tolerance, and acceptance among students by providing an inviting and inclusive environment, fostering a lively and diverse community.

Motivating Future Generations
The AU Women in Computing Club is essential in advancing inclusion, empowering women in technology, and fostering cooperation. The group enables women to succeed in the field of computing and artificial intelligence by offering a platform for professional development, networking, advocacy, and community building. In addition to furthering their own professions, club members are encouraging younger generations of women to break down barriers and make substantial contributions to the field of technology.

AU Debating Club
Our AU Debating Society's objectives are to improve students' critical thinking abilities, articulation, research skills, conflict resolution, tolerance, greater empathy, emotional control, and a broader perspective of the world. It also teaches faculty, staff, and students how to structure and organize their thoughts while also fostering their analytical and research abilities.

Research

Professional Development Programmes
Air University offers a range of professional development programmes aimed at enhancing the skills and knowledge of its faculty, staff, and students. These programmes include:Workshops and Seminars, Certifications and Courses Mentorship Schemes, Knowledge-Sharing Sessions . The institution promotes a culture of continuous learning and knowledge sharing through. Regular sessions where different departments share their work, fostering collaboration and cross-disciplinary learning. Inviting experts from various fields to speak on topics related to equality, diversity, and inclusion. Encouraging joint research projects that address social inequalities and propose innovative solutions.

Performance Assessment

Access to Education
Our university has put in place a number of policies to guarantee fair access to education. To assist students from underprivileged families, scholarships, financial aid programmes, and merit-based admissions rules have been implemented. Collaborations with community groups and educational institutions seek to find talented people who might experience socioeconomic challenges and give them options for higher education.

Non Discrimination Policy
Air University follows open door policy, rights of employees and students reporting discrimination from educational or employment disadvantages are protected through formation of committee in case of any such instance.

Anti-Harassment Policy
Seeks to handle and prevent hostile circumstances that undermine employees' dignity

A support for Differently abled students
Air University is committed to a policy of equal opportunities for persons with disabilities to pursue their higher studies in a conducive environment and to ensure accessibility for the disabled to higher education with provision of disabled friendly campuses and classrooms.

AU need based Scholarship
Through this scheme AU funds in each semester to needy students who face the financial constraints ranging from 25 to 50% of tuition fee discount.

Student Support Services
Our university has built extensive student support services because it understands the value of comprehensive help. These services include counselling, mentoring programmes, career counselling, and academic advice. Students with socioeconomic difficulties receive special attention, allowing them to access resources, acquire necessary skills, and reach their full academic potential.

Student Learning & Academic Excellence

AU Sha'oor Society
It works for social welfare and character building of youth and are dedicated to bring academic, social and moral awareness in the society. Explicitly, Sha'oor is nonpolitical, non biased student organization, works on numerous civic engagement projects and community development programs through its platform for the wellbeing of the community.

Microsoft Learn Student Ambassador
Air Chapter organized a successful coding competition, "CodeAir 2.0," offering participants opportunities to enhance their coding skills and connect with industry experts. The event aimed to empower students with career guidance, job prospects, and hands-on experience with Microsoft products like Azure and Visual Studio.

Sky Gazing
Air Astronomical Society's annual Sky Gazing event offered astronomy enthusiasts a unique opportunity to explore the wonders of the night sky. Led by experts, students used telescopes to observe planets, constellations, and nebulas, while learning fascinating facts about space.

Career Development Opportunities
Air University supports the career advancement of its community members by:
Career Counseling: Providing personalized career advice and planning services.
Facilitating connections with potential employers and offering internship programs to enhance practical experience. Developing leadership skills through specialized training programs aimed at preparing individuals for management and leadership roles.

Training and Coaching to Combat Workplace Bullying

Empathy and Understanding
To foster a respectful and supportive work environment, Air University emphasizes the importance of empathy and understanding through. Sensitivity Training: Programs designed to increase awareness of the impact of bullying and the importance of empathy in the workplace. Sessions that highlight the value of diversity and teach participants how to appreciate and respect differences.

Encouraging Polite Dialogue and Dispute Resolution
Effective communication and conflict resolution are key components of the university's strategy to combat bullying. Equipping individuals with the skills to resolve disputes amicably and constructively. Teaching techniques for effective and respectful communication in diverse settings.

Raising Awareness of Bullying Behaviors
Air University works to raise awareness about bullying through. Informative campaigns that define bullying, its effects, and how to recognize it. Providing clear and accessible ways for individuals to report instances of bullying confidentially.

Empowering Action and Support
The institution empowers its community to take action against bullying by offering tools and strategies for individuals to confidently address and report bullying. Establishing peer support groups and counseling services for those affected by bullying.

AIR UNIVERSITY ISLAMABAD
GOAL 11: SUSTAINABLE CITIES AND COMMUNITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

Social Contribution & Participation

Kashmir Solidarity Day
The event was s Solidarity gathering in respect of Kashmir was organized by AU Music Society. It was planned with the conception to draw attention to the plight of our Kashmiri brothers and prayer for those hit by the devastating earthquake in Turkiye Syria.

Love and Life
Air University Islamic Society's arranged a motivational talk followed by Q&A session organized on the topic "Love and Life" by Tuaha ibn e Jalil.

Research

Research and Development Initiatives
Air University has established itself as a center for innovative research on sustainable building materials. Key initiatives include:

Material Science Research: Conducting extensive research on new and existing materials to evaluate their environmental impact and cost-effectiveness.

Green Building Technologies: Developing technologies that enhance the sustainability of buildings, such as advanced insulation materials, energy-efficient windows, and green roofing systems.
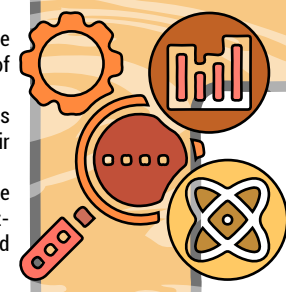
Collaborative Projects: Partnering with industry leaders, government agencies, and other academic institutions to advance research and share knowledge on sustainable building practices.

Life Cycle Assessment (LCA) Implementation
The university emphasizes the use of Life Cycle Assessment (LCA) to ensure the sustainability of building materials. This involves:

Comprehensive Evaluations: Assessing materials from production to disposal to understand their environmental impact fully.

Data-Driven Decisions: Utilizing LCA data to make informed decisions about material selection, prioritizing those with lower environmental footprints and longer lifespans.

Educational Programs: Integrating LCA methodologies into the curriculum to educate future engineers and architects on sustainable practices.

Performance Assessment

AU Travel and Explore
Air University provides their students and staff with local Shuttle/bus services for travelling in twin cities i.e., Islamabad and Rawalpindi. Air University has its own shuttle service, which includes high-rise buses and coasters.

Our Pedestrian Paths
Air University's infrastructure, car parking areas, motorcycle and bicycle parking, and pedestrian footpaths are all provided in accordance with proper design and standards, and students and staff are encouraged to use private carpool services to avoid additional traffic and burden on campuses.

AU PEDESTRSAIN PATH POLICY
Pedestrian rights are becoming a necessity for being able to travel freely due to the approaching trends of traffic on roadsides.. Additionally, people who are physically challenged or disabled deserve special consideration and care when transporting wheelchairs from parking lots to departments or elsewhere on the university grounds.

Air University Vehicle Management
The administration department is very cautious about how the automobiles are parked and handled so that heavy traffic is avoided at the main entrance gate and the flow of traffic is smooth and accessible to prevent any accidents

Air University Thespian Society
AU All cultural events at the university are coordinated by the thespian society. Each year, a separate fund is set aside to increase faculty, staff, and student interest in this field and their understanding of its significance in the city's interior.

Student Learning & Academic Excellence

AU Sustainability Courses
We have added many courses for our students in the program undergraduate and postgraduate to learn about the infrastructure of the cities as per the environment and community and overcome the challenges in the green infrastructure

AU Cultural heritage
Honoring the diversity of our multi-cultural land, Our Cultural Society whilst collaborated with air university music society and conducted an event of Rang-e-saqafat to recognize your culture, bringing with us cultural dances embodying the true meaning of what it stands to be a Pathan, a Sindhi, a Balochi, a Punjabi or from Hunza

AU Tourism and Management
Students at Air University are encouraged to use tourism and management to highlight Pakistan's natural beauty. It has launched a programme called BS Tourism and Management with the goal of attracting a lot of students and enhancing its standing on both national and international platforms.
Our faculty is every keen to promote this concept of tourism and management at every forum

AIR UNIVERSITY ISLAMABAD

GOAL 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Emotional Impact: Anticipating feelings of guilt for wasting food prompts individuals to adopt behaviors aimed at reducing waste.

Increased Responsibility: Heightened awareness of the negative consequences of food waste fosters a sense of responsibility, encouraging more sustainable consumption patterns.

Convenience and Accessibility: Providing easy access to tools and resources for food waste reduction, such as composting facilities and food sharing programs, enhances participation.

Promote Positive Behavior: Encourage practices such as meal planning, proper food storage, and creative use of leftovers.

Performance Assessment

Anti- littering Program

The program intended to maintain the beauty of the campus. The improper disposal of any form of litter was strictly prohibited on campus. The posters for the disposal of litter are any waste material, garbage, or rubbish, including but not limited to food, food wrappers, paper, cans, bottles, or discarded debris placed all over the campus.

Decor by recycling waste

The sustainable solutions efforts were carried out by planning and executing waste products. The plastic bottles and other recyclable waste were reused to make dustbins, robots, and other products to décor the campus.

Green Office

The Air University Green Office task for waste consumption aimed to reduce waste generation and promote sustainable practices within office settings. The task involved implementing various strategies to minimize waste and encourage responsible consumption. Some of the key initiatives undertaken as part of this task are outlined below:

Waste Reduction Policies: The Green Office task involved implementing policies to reduce waste generation. These policies included measures such as paperless operations, encouraging digital communication and documentation, and minimizing the use of disposable items.

Composting Initiatives: To further reduce organic waste, composting initiatives were introduced. Composting bins were set up to collect food scraps and other organic materials, which were then transformed into nutrient-rich compost for use in gardening or landscaping projects.

Reusable and Eco-Friendly Products: The task encouraged the use of reusable and eco-friendly products within the office. This included promoting the use of reusable water bottles, coffee mugs, and shopping bags. Additionally, the procurement of eco-friendly office supplies, such as recycled paper and non-toxic cleaning products, was prioritized.

Awareness and Training: The Green Office task involved conducting awareness campaigns and training sessions to educate employees about waste reduction, recycling practices, and the benefits of sustainable consumption. These initiatives aimed to create a culture of environmental responsibility and encourage individuals to actively participate in waste reduction efforts.

Monitoring and Evaluation: Regular monitoring and evaluation of waste consumption and recycling rates were conducted to assess the effectiveness of the Green Office task. Data on waste generation and recycling rates were collected to identify areas for improvement and track progress over time.

Waste Management Policy

Air University is devoted to minimizing its environmental impact through an efficient waste management system. The University urges all employees, students, contractors, and visitors to abide by the policy and associated processes on waste management in order to make the institution clean and green and to fulfill our legal duties and recycling goals.

Social Contribution & Participation

Love Cleanliness Program

The Love Cleanliness program was introduced at the class level to refresh the ideology of cleanliness and to make the environment around the university squeaky clean and hygienic

Environmental Solutions Program

The aim of this program was to develop environment-friend projects, where no hazardous material was suggested to be used. Every product contained at least 85% of useless things to produce a recycled product. The idea was to bring something innovative with no copyrights.

Re-craft Competition Program (Recycle, Rebuild, Reuse)

The students were suggested to use home materials for the crafts competition. The target was to make the craft of recyclable things or depict some idea regarding recycling.

Sewage Disposal

Air University has established the proper system for sewage disposal when water tank filled with sludge & other particles; we have shift this to septic tank through branch & main sewerage line according to public health engineering. In our septic tank, there are three parts. The top layer is oils and grease and floats above all the waste. This commonly referred to as "scum". The middle layer contains wastewater along with waste particles. The third and bottom layer consists of particles that are heavier than water and form a layer of sludge. In future, we have proper plan of treatment plant in our phase III, till that time this is sufficient for this campus.

Research

Drivers of Food waste Reduction Behavior Sustainability of food waste reduction

The departments at Air University is dedicated to developing efficient waste management strategies, particularly focusing on the reduction and control of food waste. This report highlights the key drivers influencing behavior towards food waste reduction, the sustainability of these efforts, and how they align with the Sustainable Development.

Expectation of Guilt

The department has identified the expectation of guilt as a crucial motivator in reducing food waste. The findings suggest that:
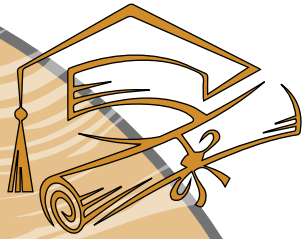
Inorganic Waste Treatment.

Recycling involves the transformation of waste materials into new products such as paper, towels, and water bottles. By implementing effective recycling measures, the university aims to minimize the amount of waste sent to landfills and maximize the reuse of recyclable materials, contributing to a more sustainable approach to waste management.

Student Learning & Academic Excellence

Study programs

We have added the courses Introduction to Environmental Sciences, Social Psychology, and Environmental Psychology to each curriculum of undergraduate and graduate studies to educate students about the significance of understanding global warming and the misuse of energy and food resources, which has an ultimately negative impact on society and the planet as a whole.

Students who complete these study programmes will have the knowledge and abilities necessary to comprehend the intricacies of responsible consumption and create novel approaches to sustainable practises. Students are prepared to be change agents and contribute to a more responsible and sustainable future by incorporating these ideas into their education. Tree Plantation Campaign was held by the Air university Kamra Campus which was attended by large number of students, faculty members and staff.

AIR UNIVERSITY ISLAMABAD

GOAL 13: CLIMATE ACTION

13 CLIMATE ACTION

Social Contribution & Participation

Air University has undertaken various projects to address the problems caused by global warming and has significantly contributed the nation's climate. Development of Smart & Assistive Technologies for Energy Conservation in Buildings. Solar Powered Intelligent LED Street Light with Sun Tracker. Design and Development of an IOT based Smart Meter Lab Model

Promoting Ecological Systems through technological advancements

Air University takes pride in being the organizer of Pakistan's largest technical Olympiad, Air Tech. The event is an amalgamation of numerous technical events highlighting a theme which always is a major problem being faced globally. AirTech'23 addressed the issue of Climate Change, with the underlying theme "Promoting Ecological Systems through technological advancements"

Research

Sustainable Land Management

To significantly reduce greenhouse gas emissions, Air University has made important contributions to sustainable land management practices. Our research spans urban planning, sustainable agriculture, and reforestation. Through these studies, we have identified optimal methods and strategies for carbon sequestration, land restoration, and sustainable land use planning. Our efforts are paving the way for effective and sustainable land management solutions to combat climate change.

Performance Assessment

Efficient Usage of Appliances and its storage

Air University is very particular about how much electricity is used, thus it has installed several energy-saving gadgets to reduce its excessive use of it without raising the university's costs.

Limiting carbon emissions

The university has committed to supporting Air University's effort to achieve zero carbon emissions by 2025 within the timeframe required by national policy. It will be reduced from 4938 metric tons to the least as per the standard Carbon emission of our country.

Policy Low Carbon Emission

Speedy and unexpected climate changes have become a serious concern globally. Pollution, noise pollution, and smog adversely affect Pakistan's population. The education sector is adequately affected due to its location in the metropolitan cities of Pakistan. There is a dire need to formulate policies to mitigate climate change (reducing greenhouse gas emissions and removing greenhouse gases from the atmosphere). So that the climate does not change as much or as quickly as it is being deteriorated. To avoid the worst effects of warmer temperatures, extreme weather, and high carbon emission vehicles, Air University is adequately mindful of such pollution and takes appropriate measures to minimize the effects within the campus area.

Number of Innovative programs in energy and climate change

Air University has undertaken various projects to address the problems caused by global warming and has significantly contributed the nation's climate. Development of Smart & Assistive Technologies for Energy Conservation in Buildings. Solar Powered Intelligent LED Street Light with Sun Tracker. Design and Development of an IOT based Smart Meter Lab Model

Our Green Building Structure and Renewable Energy Resources

All buildings are well ventilated and built to support energy saving with coolant walls (thick walls). The Solar system is being installed to decrease reliance on electricity. Sky light roof covers the open area instead of concrete ceiling to ventilate and light the blocks.

Automated Smart Home Systems

Home automation is the automatic control and monitoring of household appliances and house features like doors, windows, fans, and so on. This system improves the standard of living at home, saves energy and money and it also provides support to elderly and disabled people in the home.

Solar-Powered LED Smart Lighting Systems

All buildings are well ventilated and built to support energy saving with coolant walls (thick walls). The Solar system is being installed to decrease reliance on electricity. Sky light roof covers the open area instead of concrete ceiling to ventilate and light the blocks.

This theme was created to support the causes and enhance awareness of individuals for clean and green Pakistan. All offices were provided an indoor plant and buildings corridors were also decorated with indoor plants to create better working environment and increase awareness of Air University employees

Making Air University's Environment Lively and Inviting

By lining every pedestrian pathway with a profusion of trees, Air University has made proactive measures to foster and inclusive atmosphere for its staff, students, and professors. This creative project seeks to promote a positive and inclusive environment across the university campus.

Green Space

Air University Has Built gardens, and green places on the campus. These spaces for leisure, biodiversity preservation, and carbon sequestration in addition to improving the university's aesthetic appeal.

Paperless Environment

The paperless environment adopted by Air University supports staff and student growth in digital literacy and proficiency. By using digital tools and platforms, individuals become more adept at navigating and utilising technology, which improves their employability in a world that is becoming more and more digital. We have included instruction in digital literacy in their curricula, giving students the skills they need to succeed in the digital age.

Student Learning & Academic Excellence

The Clean Campus

Shaoor the Society took an initiative and conducted an On-Campus Safai Walk, an annual event for the Clean and Green Campaign and now an initiative of the Green Youth Movement under prime Ministers youth Movement. The idea behind the initiative was to enhance the concept of cleanliness and to encourage students, staff and management to play their part and apply the need and use of proper sanitation and hygiene practices among university.

Faculty along with students of AU took part in this activity showing their positive behavior towards the conservation of campus, creating an environment for everyone to learn about cleanliness and creating awareness about its importance for future.

AIR UNIVERSITY ISLAMABAD

GOAL 14: LIFE BELOW WATER

14 LIFE BELOW WATER

Performance Assessment

Rain Water Harvesting
Air university every structure has a separate drainage system for pure water (rainwater) and wastewater. Thus, rainwater is collected from building rooftops and then released into a lake that collects it for use by plants.

Water Conservation Program
Water conservation is the practice of using water efficiently to reduce unnecessary water usage. Air University Multan Campus have a proper drainage system, in case of heavy rain or flood, our system properly drains the water efficiently.

Water Efficient Appliances Usage
By utilizing water-saving technology, the university focuses on lowering water consumption. Currently, our university is using 73.86% of the automatic faucets, flushes, and dual flushes available. This also covers the upkeep and alterations of sanitary equipment. Sanitary equipment that uses less water was installed in the majority of bathrooms and toilets.

Legend: Numbe rof regular appliances — Numbe rof Effience appliances

TOILET: 450 / 300
WASH BASIN: 200 / 170

Social Contribution & Participation

The engineering student from our university worked on the project and really extracted power from the shallow streams using a hydrodynamic design and optimization of cycloidal vertical axis water turbine

Analysis of Vertical Axis Water Turbine for River Application
A student has created and constructed a vertical axis water turbine application for rivers. The aim is to design and fabricate a vertical axis wind turbine with automated blade angle correction (alignment of the blade to maximize lift by adjustment of angle of attack) depending on fluid speed and angle of incidence.

Solar-powered Automatic Drip Irrigation System
The variation of the spatial and temporal distribution of available water for irrigation makes significant demand on water conservation techniques. Irrigation System provides a sustainable solution to enhance water use efficiency in the agricultural fields using renewable energy. This system allows farmers to apply the right amount of water at the right time.

Research

Micro Turbines for Sustainable Energy in Southeast Asia
Extensive research conducted by the engineering department at Air University, supplemented by numerous literature sources, has demonstrated that using micro turbines to generate electricity in Southeast Asia is a highly viable option. Micro turbines offer a promising solution for harnessing the region's vast water resources while maintaining the delicate balance of its ecosystems. Their high power generation density, coupled with a minimal environmental footprint, ensures an efficient and sustainable energy source. Additionally, the economic advantages presented by micro turbines further enhance their potential as a cornerstone of the region's renewable energy strategy. This advanced technological approach not only promotes energy independence but also aligns with broader environmental and economic goals.
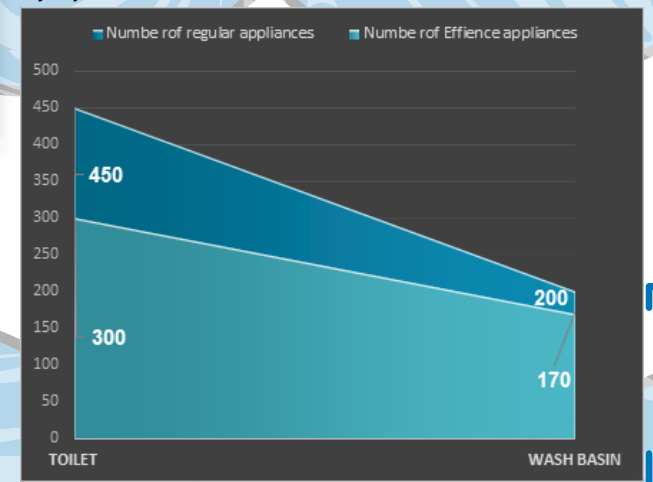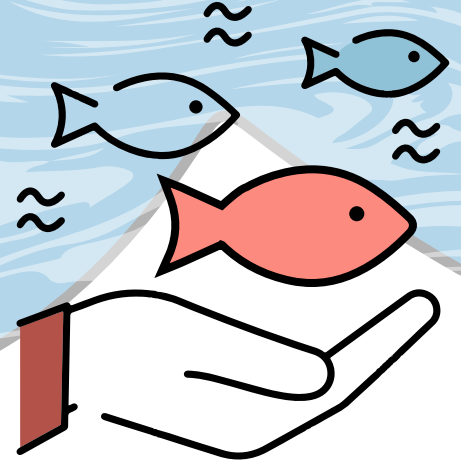
Policy - Water Management
Air University has two tube wells for extracting water that is used for horticulture, CDA and Air Base additionally provide a dedicated water supply. Although plants naturally utilize rainwater, there isn't a specific water storage facility accessible due to space restrictions.

Water pollution control in the campus area
No open water spaces/reservoirs are available which can be polluted. Water tanks are covered. To water the lawn water sprinklers are used.

Student Learning & Academic Excellence

Air University offers diverse environmental science courses: Heat and Thermodynamics, Weather and Meteorology, Environmental Impact Assessment, Environmental Policy and Governance, Ecology and Biodiversity Conservation, and Environmental Chemistry. These courses equip students with essential skills to address environmental challenges and promote sustainable development.

Seminar on Climate Change: Life Below Water
To address the pressing issue of global warming and its adverse effects on the environment and biodiversity, Air University organized a comprehensive climate seminar for all students. The seminar covered a range of critical topics, including:
Impacts of Climate Change on Wildlife and Air Pollution: Exploring how rising temperatures and increased pollution levels are affecting various species and ecosystems.
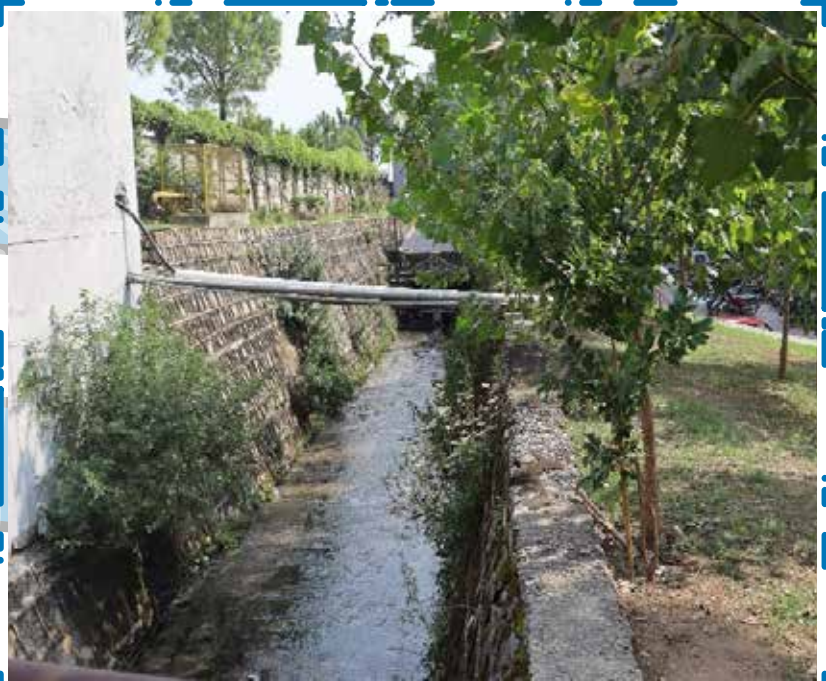**Changes in Forest Cover:** Analyzing the effects of climate change on forest ecosystems and the implications for biodiversity.
Vulnerability of Urban Areas to Flooding: Assessing how climate change is increasing the risk of urban flooding and its impact on communities.
Health Issues Related to Climate Change: Discussing skin diseases and other health problems that are exacerbated by climate change.
Waste Management: Examining sustainable practices for managing waste to reduce environmental impact.
Water Recycling: Highlighting the importance of water recycling in conserving resources and mitigating the effects of climate change.

AIR UNIVERSITY ISLAMABAD

15 LIFE ON LAND
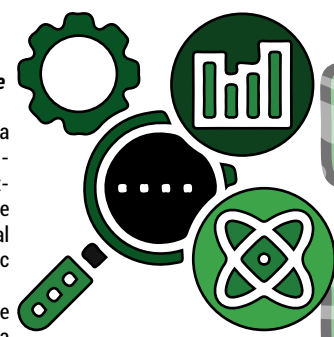
GOAL 15: LIFE ON LAND

Social Contribution & Participation

Striving for a Pollution-Free Environment

A Memorandum of Understanding (MOU) for the "From Waste to Plant" initiative has been signed by Friends of the Environment and Air University in an effort to work together to battle pollution and promote environmental sustainability. Through the creative conversion of waste materials into plant resources, this ground-breaking project hopes to lower pollution levels and restore green places. In the course of this endeavour, volunteers from groups such as the Shaoor Society plant an astounding 19,000 trees in different parts of Pakistan. In addition to addressing waste management issues, the "waste to plant" concept helps to create a cleaner, greener environment for current and future generations.

Commitment to Animal Welfare

The goal of the Biomedical Sciences Department at Air University is to conserve biodiversity and advance animal welfare via joint efforts with the Biomedical Department at NUST. We work together on collaborative projects and research endeavours to make sure that the procurement of animals for scientific research is compliant with ethical standards and conservation goals. We fight for the humane treatment of research animals and put policies in place to lessen the negative effects on wildlife populations. In order to safeguard and preserve biodiversity for the benefit of animals and ecosystems, we prioritise animal welfare and conservation principles in our research endeavours.

Research

Leveraging Biogas and Sustainable Resource Investments

Achieving sustainable growth and having a beneficial influence on society and the environment are priorities for our university department. In order to maximise the use of renewable energy sources and advance environmental sustainability, we plan to make strategic investments in natural resources and biogas. We help to mitigate climate change and reduce greenhouse gas emissions by using biogas, a renewable energy source made from organic waste products. In addition to solving waste management issues, our investments in biogas infrastructure aid in the development of sustainable energy alternatives.

We also acknowledge the significance of managing natural resources responsibly. Our goals are to conserve ecosystems, maintain biodiversity, and advance sustainable land management techniques by making calculated investments in sustainable forestry, agricultural and land conservation initiatives.

Promoting Sustainable Development for Societal Well-Being

We support a green transition that puts society's welfare and environmental sustainability first, in keeping with our dedication to corporate social responsibility and environmental stewardship.

Our programmes are centred on offering financial support and incentives to businesses so they would adopt sustainable practices and make investments in environmentally friendly projects. We provide assistance with projects including sustainable agriculture methods, trash reduction and recycling schemes, and renewable energy projects.

Furthermore, we work with corporations, governments, and nonprofits to further sustainability objectives and environmental goals globally. We strive to promote sustainable development practices, increase public knowledge of environmental concerns, and effect positive change for the benefit of both society and the environment through partnerships and advocacy initiatives.

Performance Assessment

Eco-Friendly Land Management

At Air University, we have implemented ecologically friendly landscaping practices as part of a comprehensive approach to sustainable land management. These methods include encouraging the growth of native plant species that sustain regional ecosystems and reducing the usage of herbicides and pesticides. We contribute to maintaining water quality and soil health by lowering chemical inputs, which makes the campus environment more robust and sustainable. Our dedication also includes the creation of green areas that improve the biodiversity of our campus by acting as homes for nearby species.

Advancing Biodiversity and Ecosystem Research

The goal of Air University is to increase our knowledge of ecosystems and biodiversity. The complex interactions that exist between various species, their habitats, and the larger environment are the main subjects of our research. By providing financing for extensive research initiatives that examine these intricate relationships, we highlight the significance of biodiversity. Our programmes incorporate this information, giving students chances for experiential learning and developing a greater understanding of ecological interconnectedness.

We actively participate in outreach and education programmes in addition to scholarly research to increase public awareness of the threats to biodiversity. We inform students and the general public about the vital role that biodiversity plays in preserving ecological balance as well as the possible repercussions of its loss through workshops, seminars, and community initiatives.. Our goal is to inculcate a sense of responsibility for safeguarding our natural heritage and to stimulate proactive conservation measures.

Moreover, Air University works with regional, national, and worldwide organisations to promote conservation initiatives and sustainable practices off campus. Through engagement in international networks and policy discourse, our aim is to impact more comprehensive environmental approaches and advance the objectives of sustainable development. Our all-encompassing strategy guarantees that we are contributing to academic knowledge advancement while also having a noticeable effect on sustainability and environmental preservation.

Air University Campus Covered in Forest Vegetation
To stabilize the soil and the slow water flow, Air University has planted vegetation and committed over 45% of its infrastructure to a forest.

Student Learning & Academic Excellence

Embracing Sustainability: Our Campus Green Initiatives

At Air University, we are dedicated to fostering a sustainable campus environment through our green vision. This vision encompasses various initiatives aimed at minimizing our environmental footprint and promoting eco-friendly practices across campus. We prioritize the implementation of green construction standards, ensuring that all new construction and renovation projects adhere to environmentally sustainable principles. Additionally, we actively adopt energy-efficient technologies to reduce energy consumption and greenhouse gas emissions. By maximizing water use efficiency and implementing water-saving measures, we strive to conserve this precious resource. Furthermore, we encourage trash minimization and recycling efforts, promoting a culture of environmental responsibility among our students, faculty, and staff.

Integrating Sustainability into Learning

Sustainability ideas are included into our academic curriculum as part of our commitment to environmental responsibility. Several courses on sustainable development, environmental management, and conservation concepts provide students with the chance to have a thorough awareness of environmental issues and their solutions. These classes equip students with the know-how and abilities needed to tackle difficult environmental problems and help build a more sustainable future. We enable our students to become environmentally conscious leaders who can effect good change in their communities and beyond by providing them with practical learning experiences and multidisciplinary methods.

AIR UNIVERSITY ISLAMABAD
GOAL 16: PEACE, JUSTICE, AND STRONG INSTITUTIONS

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Performance Assessment

Good Governance for Strong Institutions

The administrative, academic, and research functions at Air University are managed by six primary statutory bodies: the Board of Governors, Academic Council, Finance and Planning Committee, Selection Board, University Functional Committee, and Faculty Board of Studies. These bodies ensure accountability and transparency among all stakeholders, safeguarding the university's assets and upholding its integrity both internally and externally.

Our Integrity

To address the concerns and challenges faced by students and staff and to foster a healthy environment for learning and working, Air University has established several dedicated committees and centers. These include the Discipline Committee, the Unfair Means Committee, the AU Harassment Monitoring Cell, and the Center for Counseling and Psychological Services.

Ethical and Moral Conduct on Social Media

Air University has implemented a comprehensive social media policy to prevent conflicts of interest and protect the university's reputation. This policy aims to mitigate the risk of misuse of social media platforms, ensuring that all interactions reflect the university's values and standards.

Social Contribution & Participation

Impact on Conventional & Nuclear Strategy The Faculty of Aerospace and Strategic Studies (FASS) at Air University, Islamabad, organized an international conference themed "Emerging Technologies - Impact on Conventional & Nuclear Strategy" in collaboration with the Strategic Vision Institute (SVI). The event was attended by senior members of the media, government officials, and academics. Over 200 participants attended the conference, including 150 students from various universities in Islamabad and other locations. revise the advanced language.
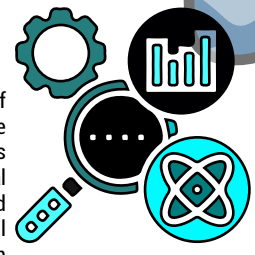
Media's Role in International Relations

A guest lecture was organized by faculty member Mr. Faraz Haider for 5th semester students enrolled in the Strategic Communications course. The speaker was Mr. Siddique Humayun, Director Advocacy and Strategic Communications, IPRI, spoke on the key aspects of the role of media in International Relations.

Strategic Escalation and Crisis Management, Lessons for Air and Space Power

The Faculty of Aerospace and Strategic Studies held an interactive session with the delegation from International Institute of Strategic Studies on 8th March 2024. The panel included distinguished guests from IISS, Timothy Wright and William Alberque. They were joined by Dr. Ali Sarosh, Associate Professor at Department of Mechanical and Aerospace Engineering Air University and Air Marshal M Ashfaque Arain (Retd), Advisor to Chief of Pakistan Air Force on CASS Affairs at the Centre for Aerospace & Security Studies. The conference gave the students the opportunity to engage with the panelists through a constructive Q/A session.

A Roundtable Discussion

The pertinent matter of the Conference on Disarmament was elaborated and discussed.

Research

Pathway for Aerospace and Strategic Studies

Air University proudly features a specialized Department of Aerospace, a Strategic Studies Department, and an Office for International Cooperation. These departments synergize to forge strong connections between national and international regions. By engaging students and faculty in collaborative research, they provide insightful solutions for promoting peaceful dialogue and stabilization in the southern region and beyond.

Student Learning & Academic Excellence

Educational Services

BS international relations, MS Strategic Studies, and Ph.D. Strategic Studies for their students, staff, and faculty to gain the best knowledge for developing strong institutions, resolving conflicts at a large scale, and establishing stability and peace in the regions.

Session on Career Perspectives

Faculty Member Ms. Aiza Azam organized an interactive session with young and mid-career professionals for her 5th semester Advisory Group, to share their experiences and advice with the students. The panelists all had a Social Science background and belonged to diverse fields, including government, academia, the media, the diplomatic corps, and the governance sector.

Center for Aerospace and Security Studies (CASS)

The Faculty of Aerospace and Strategic Studies (FASS) arranged a visit for Students and briefed about CASS's publications, national and international engagements, internship opportunities, and the role of airpower in Pakistan.

FASS 3rd Workshop on Contemporary Security Issues

The Faculty of Aerospace and Strategic Studies (FASS), as a contributor and participant in shaping security and strategic discourse, convened an eight-day workshop in collaboration with Friedrich-Ebert-Stiftung (FES) to acclimatize participants on issues significantly impacting state and international security, and offered them opportunities to engage, network, and discuss with national and international experts and subject specialists from the public and private sector.

AIR UNIVERSITY ISLAMABAD
GOAL 17: PARTNERSHIP GOALS

17 PARTNERSHIPS FOR THE GOALS

Social Contribution & Participation

Institute of Cost and Management Accountants of Pakistan, Capacity Analytics, National Defense University, CISCO Networking, Akhuwat Islamic Microfinance, Karakoram International university of Pakistan.

Strategic Vision Institute, Institute of Strategic studies, Hashoo School of Hospitality Management (HSHM) Islamabad, Tech Avenue, Intellectual property, and Islamabad Chamber of Commerce and Industry at the National platform.

International Engagements

- On 29th April 2024, Air University hosted Mr. Michael Stewart, Global Engagement Office Manager of Griffith College Dublin University, and Mr. Ammar Qureshi regional head of Ireland Education office to discuss the potential collaboration opportunities between the institutions.
- On 13th May 2024, Air University hosted Ms. Emma, and Ms. Ayesha from University of Kent. The meeting was followed by an open information desk for Air University Students.
- ON 7TH May 2024, a delegation from the Syrian Ministry of Education headed by Dr. Rami Waheed Al-Dhulli, Deputy Minister of Education and Educational Affairs, Syria visited Air University Islamabad. The representatives from HEC, MOFA, MoFEPT accompanied the delegation. Collaboration Plans included forming technical teams and signing MoUs facilitated through diplomatic channels.
- A delegation consisting of 15 members from the Higher Education Commission, British Council, and three prominent UK universities (Ulster University, Oxford Brookes University, and University of Essex) Recently visited Air University to explore potential collaboration opportunities. The visit was followed by a trip to the National Aerospace Science and Technology (NASTP)

Sustainable Development Dialogue

With the support of NUST the University of the University, Director QEC of Air University attended the SDGs dialogue session and discussed the strategic vision for effectively implementing the SDGs policies and standards in the educational sector and overcoming the challenges posed by the threats of climate change and natural disaster.

Research

Research Synthesis

Our university has developed the policy for cut-edge best practices by combining research findings from several national and international platforms. This synthesis can operate as a basis for the creation of global best practices for the implementation of the SDGs.

Performance Assessment

National and International Collaborations
Air University International QEC Memberships

he International Network for Quality Assurance Agencies (IQAAHE), Asia Pacific Quality Network (APQN), and Association of Quality Assurance Agencies of the Islamic World (AQAAIW).
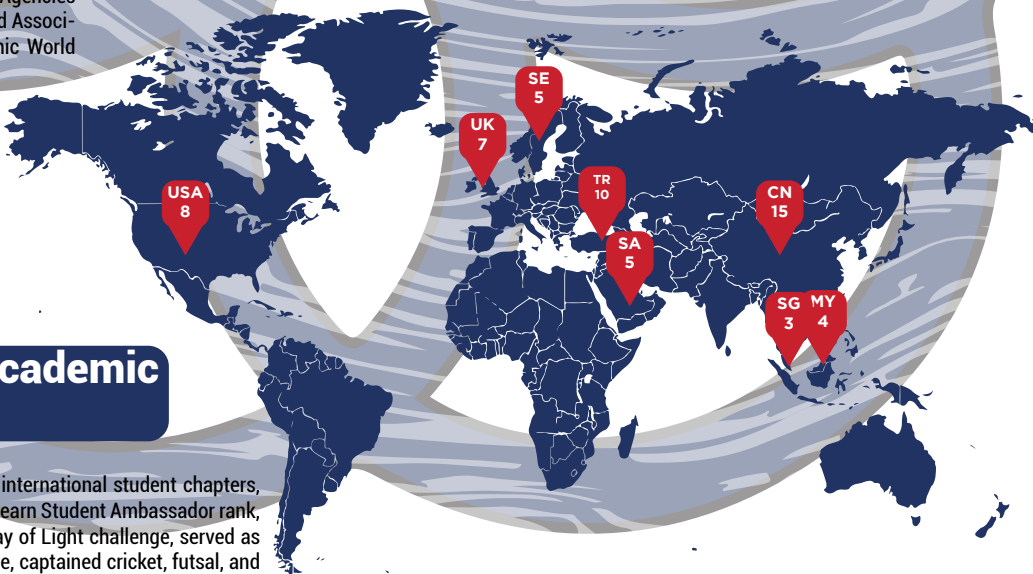
Air University International Cooperation Office

The International Cooperation Office (ICO) has a proactive take on the added significance and importance of ongoing globalization. It has diversified, in terms of formats -- including personal exchange, data exchange, bilateral workshops, international conferences, joint research centers, project base joint research groups, joint laboratories – the global outreach of the university.

Student Learning & Academic Excellence

Alisha Naqvi

During my four years at Air University, I led three international student chapters, organized 60+ webinars, achieved Gold Microsoft Learn Student Ambassador rank, secured SPIE outreach grant, won International Day of Light challenge, served as student ambassador for 10 Pearls and RemoteBase, captained cricket, futsal, and basketball teams, and made a positive impact on the student community.

Fatima Khan

Fatima Khan completed her Bachelor's in Business Administration (Marketing) in 2022. She is currently a Digital Marketing Assistant at Coreware. During her time at Air University, she started as a member of Air Media Club (AMC) and eventually became its President. She organized Media Week in 2022 and initiated a Support Group for Air University students.

Ahmer Zaman

As a representative at Shell Eco Marathon and a key stakeholder in Air University's Writers' Club, I'm grateful for the opportunities provided by the university. I led the launch of "Likherature" e-magazine, served as a delegate for VOB, headed AirTech, and received the Vice Chancellor's Recognition Award. Professionally, I worked with Reebok, Philips, and Rinnai as a Project Lead and currently hold the role of Automation and Product Specialist at a US-based SaaS Agency.

Sardar Osama Sabir

I have achieved academic and professional milestones, including completing matriculation from Pakistan International School Jeddah and earning an F Sc. from Army Public School, P.M.A, Kakul. I obtained a bachelor's degree in Mechatronics Engineering from Air University, where I received the Vice Chancellor's Letter of Recognition in 2019. I co-founded 'Likherature' e-magazine and served as President of Air e-Nexus 2020. I also led the Writer's Club during the 2019-2020 academic year.

Air University Sub Campus: Kamra

Mujtaba Ahmad and Khaqan Umar, students from the Electrical Engineering Department at Air University Kamra Campus, created the "Air Hawk RC Plane" for the DBFC Competition at GIKI. Essentially a surveillance UAV was the purpose of this plane's design. He was given an award by the administration of Air University in recognition of his significant contribution and aptitude.

FACULTY OF BASIC & APPLIED SCIENCE, AIR UNIVERSITY ISLAMABAD

1ST INTERNATIONAL CONFERENCE ON RECENT TRENDS IN STATISTICS DATA ANALYTICS WITH APPLICATIONS IN NATURAL SCIENCES (MAY 9, 2024)

Early Registration APRIL 30, 2024
On Desk Registration MAY 9, 2024

Patron

For any queries, Feel free to reach out at: ammara.cheema@au.edu.pk
Phone: +92-051-9153696

Website: http://portals.au.edu.pk/icrtsda_conference

Faculty of Basic & Applied Sciences, Air University Islamabad

1ST INTERNATIONAL CONFERENCE ON RECENT TRENDS IN STATISTICS-DATA ANALYTICS WITH APPLICATIONS IN NATURAL SCIENCES

Conference Date May 9, 2024

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