

## **Research Centre on Environmental Sustainability**

### **Overview**

Air University Islamabad hosts dedicated research initiatives with a clear focus on environmental sustainability. The **Center of Environmental and Sustainable Development (CESD)**—currently under development—aims to serve as a multidisciplinary hub for research, innovation, and policy dialogue on sustainability-related challenges. In the interim, several departments, including the Department of Mechanical and Aerospace Engineering, Department of Computer Science, and Department of Humanities & Social Sciences, are actively engaged in research that directly addresses climate action, renewable energy, environmental monitoring, and sustainable urban development.

Air University demonstrates an enduring commitment to environmental sustainability, guided by the United Nations Sustainable Development Goals (SDGs). Through a comprehensive integration of sustainability in education, research, and community outreach, the university seeks to play an active role in addressing today's global challenges. In particular, research outputs and collaborative projects align with SDG 13 (Climate Action), SDG 7 (Affordable and Clean Energy), and SDG 11 (Sustainable Cities and Communities).

This institutional effort reflects Air University's proactive stance under the Environmental Impact category of the QS Sustainability Rankings, where the presence and impact of sustainability-focused research centres play a pivotal role in driving both local and global environmental solutions.

### **Environmental Research Indicators**

#### **ER1 - Research Impact on SDGs for Sustainable Research**

Air University aligns its research agenda with SDG-linked themes through targeted funding, interdisciplinary collaboration, and outcome-driven initiatives. Faculty and research centers actively pursue projects aligned with environmental sustainability, such as:

- Climate change resilience
- Sustainable engineering and technology solutions
- Environmental psychology and public health
- Renewable energy systems

The university promotes research dissemination in high-impact journals and platforms, ensuring global visibility and contribution to the SDG discourse.

#### **ER2 - Sustainable Research National Statistics**

The Office of Research, Innovation & Commercialization (ORIC) facilitates national reporting on research outputs, including projects funded by national agencies like HEC-

TDF, NRP, and NESCOM. Sustainability-oriented themes are consistently emphasized within competitive grant proposals.

### **ER3 - Research Center with an Environmental Sustainability Focus**

The **Air University Sustainability Center**, embedded within the **Business Incubation Centre (BIC)**, leads research and innovation focused on environmental sustainability. Key contributions include:

- Support for climate and sustainability-themed startups (e.g., Tapit, Air Overflow)
- Collaborative MoUs with national and international entities (e.g., Siber Koza Innovation Centre)
- Dedicated mentorship and funding support for environmentally aligned research projects

This center fosters cross-disciplinary work and serves as a hub for green innovation.

### **ER4 - Policy Citations (Environmental)**

While formal tracking of policy citations is being strengthened, Air University faculty have contributed to national initiatives and advisory roles, particularly through linkages with:

- Ministry of Climate Change & Environmental Coordination
- Institute of Regional Studies (IRS)
- National Aerospace Science and Technology Park (NASTP)

These affiliations allow for research outputs to be referenced in policy planning, especially in domains such as sustainable defense technology, urban resilience, and digital security frameworks.

### **Strategic Focus**

- Expand tracking of SDG-related research outputs and their policy impacts
- Increase institutional collaborations with environmental think tanks
- Launch a public dashboard highlighting sustainability-oriented research projects

## Evidence

### Annex A – Research Publications on Sustainability / SDG Themes

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## **Annex B – Details of Sustainability-Focused Research Projects**

- Title, funding agency, PI name, SDG focus (especially climate, clean energy, life on land/water).

HEC FUNDED PROJECTS			
Faculty	PI/Co-PI	Project Title	Budget Millions (PKR)
FOE	Dr. M. Adil Khan	Indigenous Solar Inverter Air Conditioner Technology with Optimal Demand Response Control using Genetic Algorithm	3.57
FBAS	Dr. Iqra Shahzadi	Blood flow analysis for bifurcated stenotic artery with hybrid nanofluid	0.3
FBAS	Dr Saima Rafique	Aptamer Based Label-free Electrochemical Detection of Oral Cancer Gold Nanostructures	3.98

<b>FOE</b>	Dr. Zareena Kausar	Development of an assistive device for independence and mobility of paraplegic patients	14
<b>IAA</b>	Dr. Ibraheem Haneef	Digital Land Mapping for Mega Projects	13.81
<b>FSS</b>	Shoaib Sultan	Generate Environmental Awareness among Trainee Teachers in Tertiary Education	0.35
<b>AUSOM</b>	Dr. Khuram Shehzad	Positioning for maximal Gain; how the human welfare output of export processing zones in a developing country's context can be maximized	1.77
<b>FBAS</b>	Dr Muhammad Atif	Synthesis and characterization of Core Shell Like Structured Multiferroic Nano-Composites for Energy Storage Application	9.58
<b>FBAS</b>	Dr Rizwan Akram	Development of thermoelectric materials via model simulation and experimental Approach	0.46
<b>FOE</b>	AVM Saleem Tariq	Strengthening and upgradation of electrical engineering	3
<b>FOE</b>	Dr Syed Ahmed Pasha	System Identification of High Dimensional Dynamics Point Process System	1.77
<b>IAA</b>	Dr. M Umer Khan	Reconfigurable energy enhanced architecture for efficient utilization of stored energy	1.77
<b>FBAS</b>	Dr. Saima Rafique	Gold nanoparticles based electrophoretic discrimination of cancer related point mutations	0.47
<b>FOE</b>	Dr. Zareena Kausar	To prepare high school students for college and career (introduction of Robotics and automation)	1
<b>FOE</b>	Dr. Shakil Rehman Shiekh	Workshops for introducing sustainable energy related technologies to school students	0.88
<b>FOE</b>	Dr. Shakil R. Sheikh	Energy Saving in Buildings in Pakistan	0.5
<b>Total million (PKR)</b>			<b>57.21</b>


<b>IGNITE FUNDED PROJECTS</b>			
<b>Faculty</b>	<b>PI/Co-PI</b>	<b>Project Title</b>	<b>Budget Millions (PKR)</b>
<b>FCAI</b>	Dr. Mehdi Hassan	Detecting Food Freshness through Machine Learning and Image Processing	0.03
<b>FOE</b>	Mumajjed ul Mudassir	Socially Aware Smart Home	0.09
<b>FOE</b>	Samina Jamil	Bio Hybrid Electrical Vehical	0.09
<b>FOE</b>	Dr. Muhammad Adil Khan	Design and Development of Zero Energy Buildings based on Indigenously Available Solar and Waste Sewerage Water	0.07
<b>FOE</b>	Dr. Muhammad Adil Khan	Hybrid UPS Based on Super Capacitor Energy Storage and Adjustable Speed Generator for Military and Medical Applications	0.07



<b>FOE</b>	Mumajjed ul Mudassir	Designing and Development of IOT based Psycological Health Monitoring System	0.06
<b>FCAI</b>	Dr. Naveed Bhatti	Water Flow Monitoring System	0.03
<b>FoE</b>	Air Commodore (R.) Tahir Mahmood Khalid	SCADA Based Water Filtering and Supply System	0.04
<b>FoE</b>	Madeeha Uzma	Smart Helmet for Ignition of Bike and Emergency Contact	0.04
<b>FoE</b>	Engr. Salman Tariq	Frequency Controlled Refrigeration	0.03
<b>IAA</b>	Dr. Sohail Iqbal	Design and fabrication of Canal top solar panel system	0.08
<b>FOE</b>	Dr. Zareena Kausar	Design and implementation of aeroponic farming	0.08
<b>FOE</b>	Dr. Shakeel Rehman	Design and fabrication of tree plantation drone	0.08
<b>FOE</b>	Dr. Muhammad Adil Khan	Hybrid electric vehicle	0.08
<b>FOE</b>	Engr. Atiq ur Rehman	Guidance and monitoring system for AU parking	0.08
<b>FOE</b>	Dr. Muhammad Adil Khan	Electric vehicle with regenerative braking and battery protection system	0.07
<b>FOE</b>	Engr. Atiq ur Rehman	Weather data simulation and experimental calculations of heating and cooling loads	0.06
<b>FOE</b>	Dr. Muhammad Adil Khan	Solar power fine dust/smoke removal system using cockroft walton circuit	0.06
<b>FOE</b>	Dr. M. Adil Khan	Controlling solar water pump using variable frequency drive by android	0.03
		application	
<b>FOE</b>	Dr. Muhammad Adil Khan	Design and implementation of shunt active power filter for power quality	0.02
<b>FOE</b>	Dr. Zafarullah Koreshi	Thermoelectric Incubator	0.07
<b>FOE</b>	Dr. Noman Naseer	Embedded System for Automatic Detection of Heart Disease using ECG machine	0.07
<b>FOE</b>	Engr. Rahman R Alyaei	Multi Source (Solar power using a multi-level inverter WAPDA Generator) Power System Variable Load and Automated Shifting	0.07
<b>FOE</b>	Dr. Noman Naseer	Brain Controlled Wheelchair	0.07
<b>FOE</b>	Engr. Hammad A. Nazir	Automatic Vehicle Gear Transmission	0.07
<b>Total million (PKR)</b>			<b>0.37</b>

More SDG projects: [https://au.edu.pk/Pages/QEC\\_WEB/StartupProjects.html](https://au.edu.pk/Pages/QEC_WEB/StartupProjects.html)

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List of Completed R&D Projects

Higher Education Commission (HEC)


National Engineering & Science Commission (NESCOM)

IGNITE- National Technology Fund

Faculty	PI/Co-PI	Project Title	Budget Millions (PKR)
FCAI	Dr. Mehdi Hassan	Heart Disease Detection using Deep learning and ECG Data	0.07
FCAI	Dr. Mehdi Hassan	X Ray Based Pneumonia Detection	0.07
FCAI	Dr. Mehdi Hassan	Detecting Food Freshness through Machine Learning and Image Processing	0.03
FCAI	Dr. Hafiz Ahmad Jalal	Autonomous Device for Obstacles Detections	0.03

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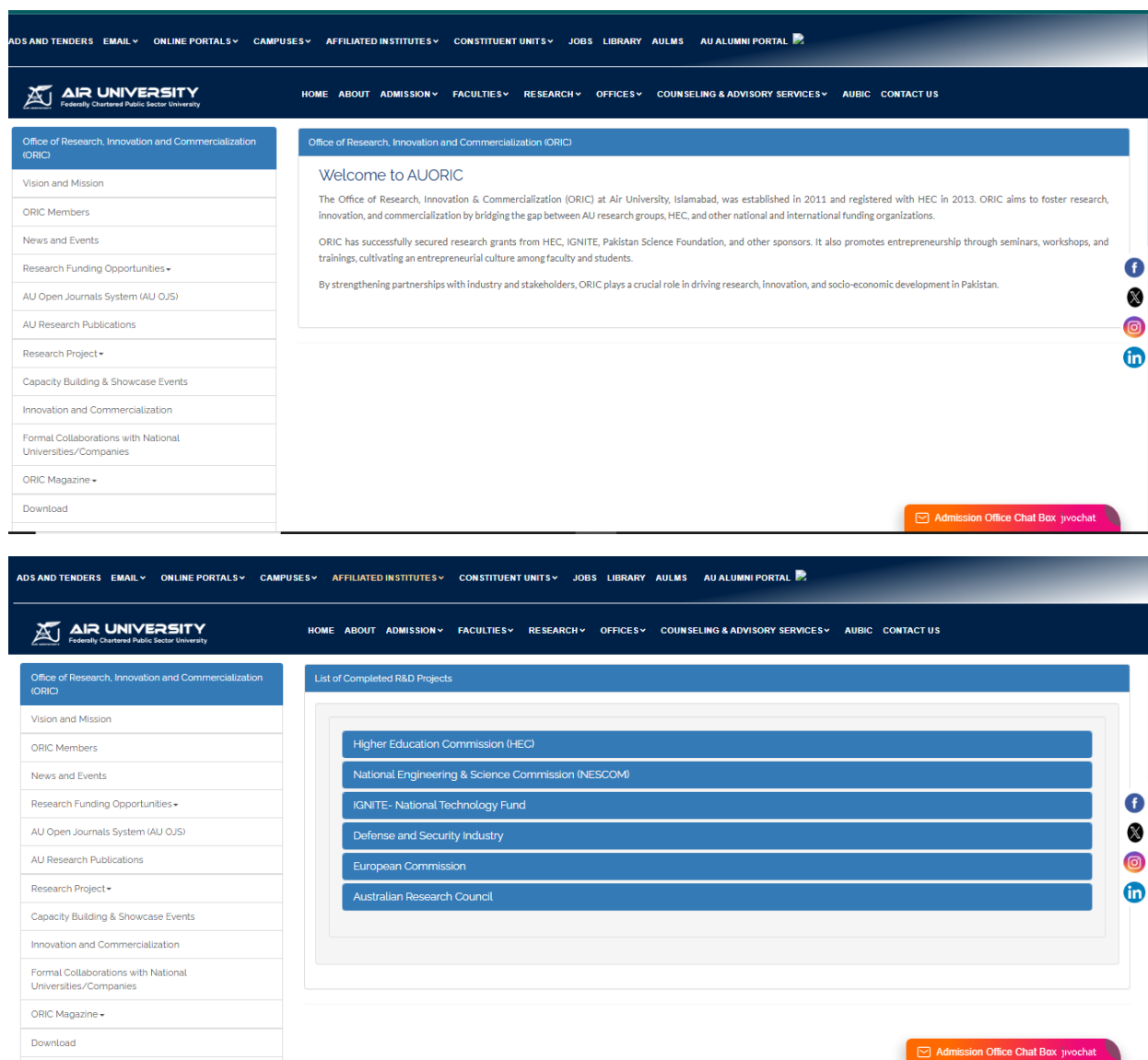
List of Completed R&D Projects

Higher Education Commission (HEC)

Faculty	PI/Co-PI	Project Title	Budget Millions (PKR)
FOE	Dr. M. Adil Khan	Indigenous Solar Inverter Air Conditioner Technology with Optimal Demand Response Control using Genetic Algorithm	3.57
FBAS	Dr. Tanzeela Shaheen	Development of an Assistive Device to Convert Sign Language Into Speech, for Use by Persons with Speech Disability	9.7
FBAS	Dr. Rashid Mahmood	Optimizing Drag and Lift Forces around Obstacles Submerged in thermal non-linear flow fields: Implementation of an Efficient FEM based Solver.	5.57
FBAS	"Dr. Rubina Nasir"	"Study of non linear structure in plasmas with non-maxwellian distributions"	0.21
FBAS	Dr. Muhammad Saqib	The development and application of novel algorithm for two dimensional nonlinear algorithm for two dimensional nonlinear burgers Huxley system	0.31
FBAS	Dr. Iqra Shahzadi	Blood flow analysis for bifurcated stenotic artery with hybrid nanofluid	

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Snapshot of Approved ORIC project grants



*Screenshots of AU's project page*

## **Annex C – Research Centre for Environmental Sustainability**

### ***1. Photographs of the centre (labs, collaborative spaces).***





**2. Screenshots or printouts from AU website about the center.**



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SDG Annual Report 2023

SDG Annual Report 2022

SDG Research publications

SDG Policies

SDG Start up Projects & FYPs

SDG Community Services

SDG Training and Development

SDG Initiative

focusing on p on student SDG to work

SDG Training and Development

1. Sustainability Workshop on SDG Initiatives at Air University

Sustainability Workshop on SDG Initiatives at Air UniversityThe Student Affairs Department at Air University is dedicated to sustainability, designed to engage students in the global Sustainable Development Goals (SDGs). The session is a series of activities dedicated to SDG initiatives, aimed at fostering active student participation in sustainability efforts. It is held on, under the guidance and supervision of the Quality Enhancement Cell (QEC) of the university. This initiative aims to inspire and empower students to contribute meaningfully to global sustainability goals, promoting awareness and actionable steps for positive environmental, social, and economic change.






### 3. *List of incubated startups with sustainability impact*

#### (i). **Gamotivity:**

Gamotivity is an innovative startup founded by students at Air University and currently incubated at the Air University Business Incubation Centre (AUBIC). The venture focuses on revolutionizing the gaming industry by integrating blockchain technology and NFTs, aiming to create a decentralized platform that empowers both gamers and developers.

Gamotivity has gained recognition for its innovative approach to gaming. Notably, the startup was a semi-finalist in the Supernova Challenge at GITEX Global, one of the world's largest tech events, highlighting its potential in the global tech arena. By fostering a community-driven ecosystem, Gamotivity seeks to redefine gaming experiences, offering transparency and ownership through blockchain integration. The startup's commitment to innovation and its roots in Air University's supportive environment underscore its potential to make significant strides in the tech industry.



*Super Nova Semi-finalist in Web3 Category*



*National Winner of ten18 Pitchfest 2023*

## **(ii).Tapit:**

**Tapit** is an innovative startup founded by Air University student Shahreyar Raja, currently incubated at the Air University Business Incubation Center (AUBIC). The

startup has developed Pakistan's first digital business card, aiming to revolutionize how individuals and organizations share contact information.

Inspired by the tap-to-access functionality of metro bus cards, Tapit offers a seamless, eco-friendly alternative to traditional paper business cards. Users can share their contact details with a simple tap, eliminating the need for physical cards and promoting sustainability. The platform also provides personalized digital cards with unique user interface designs, enabling businesses to market their products effectively.

Tapit's innovative approach has garnered significant recognition. The startup secured its first angel investment of **PKR 400,000** in March 2022 and won \$30,000 worth of grants and incentives from AWS and EO Islamabad. Additionally, Tapit achieved 4th position out of 100 startups in the All-Pakistan Startup Cup organized by ICSTSI at COMSATS University, earning a PKR 300,000 stall at the Islamabad Business Expo 2023.

Tapit's success story exemplifies the entrepreneurial spirit fostered at Air University, highlighting the institution's commitment to nurturing innovative ideas and supporting student-led ventures.

### **(iii). Overflow:**

Air Overflow is a cybersecurity-focused startup founded by students at Air University and currently incubated at the Air University Business Incubation Centre (AUBIC). The venture specializes in delivering advanced cybersecurity solutions, including Security Operations Center (SoC) services, penetration testing, malware analysis, auditing, and secure software development.

Air Overflow has made significant strides in promoting cybersecurity awareness and skills within the academic community. Notably, it successfully conducted AirCTF, the first Capture Flag (CTF) competition of its kind in Pakistan and has organized similar events tailored for Air University students. The startup maintains collaborations with prominent institutions such as the Institute of Regional Studies (IRS) and various think tanks to develop secure digital solutions. Its client portfolio includes the National Center for Cyber Security (NCCS), the Ministry of Planning, Development and Special Initiatives, Air University, and BLAU WELT Solutions.

Air Overflow's commitment to enhancing cybersecurity infrastructure and education underscores its role as a pivotal player in Pakistan's digital security landscape.





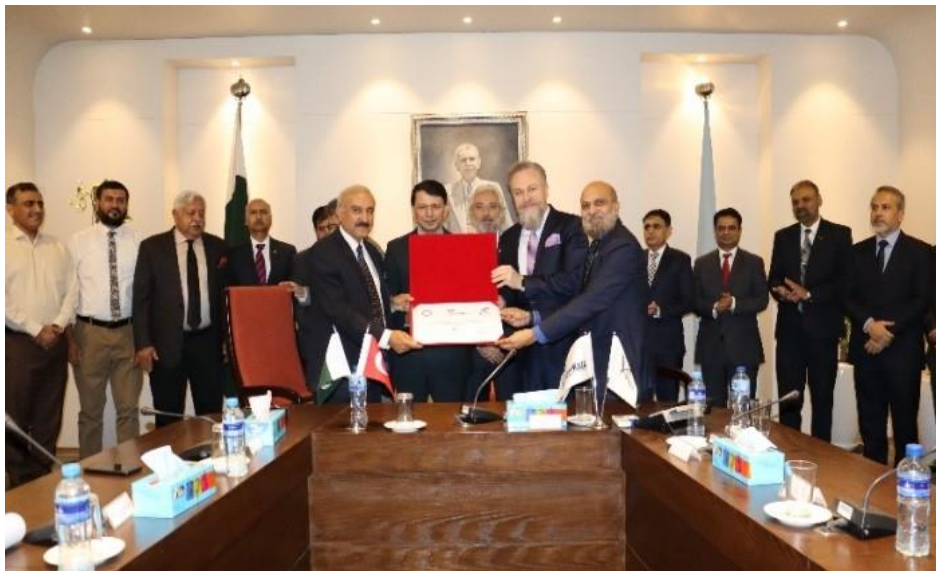
#### **4. MoU copies with Siber Koza / NASTP**

##### **(i). SIBER KOZA:**

Signing of memorandum of understanding (MoU) between National Aerospace Science and Technology Park (NASTP), Air University Islamabad and Siber Koza was held on 15th of June 2023. The signing was followed by opening of Siber Koza Innovation Centre at Air University. Vice Chancellor Air Marshal (Retd) Javaid Ahmed HI (M), CEO Cryptech Alper Cem Yilmaz and CEO NASTP Air Commodore Liaquat Ullah Iqbal signed this MoU.

Siber Koza is an innovative training and incubation center established by Crypttech Turkiye. Young students are provided training and mentorship in the fields of Cyber Security, IT, AI and Robotics. Bright students are selected and provided job opportunities for working on projects in cutting edge technologies. Furthermore, incubation of startups is also supported through mentorship, networking and funding prospects.





**(ii).MoU B/W AU & PEHCHAAN CLINIC 22nd January 2025**



The MoU between Air University and Pehchaan Clinic establishes a collaborative partnership to enhance clinical psychology through research, student internships, and professional development. It focuses on academic excellence, practical training, and community welfare, bridging the gap between academia and industry.



(iii). **AABROO Educational Welfare Organization**

The collaboration between Air University (AU) and Aabroo Educational Welfare Organization focuses on promoting sustainable waste disposal practices, supporting education for underprivileged communities, and advancing shared goals like addressing key SDGs. It includes waste management operations, financial aid for deserving students, and enhancing environmental awareness.







## **Annex D – Policy Engagement and Institutional Linkages**

Air University has engaged in collaborations and initiatives involving the Ministry of Climate Change (MoCC) in Pakistan.

In October 2019, Air University hosted a symposium titled "Climate Change and Sustainable Development in Pakistan," where the then Minister of State for Climate Change, Zartaj Gul, was invited as the chief guest. This event facilitated discussions on environmental challenges and fostered partnerships with NGOs working in the climate sector.

The university's CPD **Center of Professional Development** has undertaken research projects aimed at informing policy decisions related to sustainable development and climate change. These projects are designed to assist various governmental bodies, including the Ministry of Climate Change, by providing insights into maximizing human welfare outputs in the context of economic zones.

### ***2. Screenshots of faculty participation in policy forums or working groups.***

## Visit to Attend World Economic Forum's Annual Meeting at DAVOS

The Department of Strategic Studies at Air University recently organized an educational visit for the students of BS 4th and 6th semester of International Relations. The students had the opportunity to attend the event on creating awareness at the "World Economic Forum's Annual Meeting at DAVOS," hosted by the Karachi Council on Foreign Relations (KCFR) and Roots Millennium Education Group at the renowned Amaani Bagh. Faculty member, Ms. Aiza Azam, was invited as a guest speaker, she spoke on women empowerment.



## Reimagining South Asia: Alternative Histories of India-Pakistan Crises

Faculty member Faraz Haider conducted a project for BS International Relations 7<sup>th</sup> Semester students on 19<sup>th</sup> December 2024 for the course of Strategic Stability in South Asia. The students were asked to make videos and live sketches of what could happen if Pakistan-India crises were handled differently while applying the core concepts of strategic stability to reimagine these crises for the lessons learnt.





## **Annex E – Funding Opportunities & Research Grants**

### ***1. Tables of grants secured under HEC-TDF, NRPU, or international climate grants.***

HEC FUNDED PROJECTS			
Faculty	PI/Co-PI	Project Title	Budget Millions (PKR)
FOE	Dr. M. Adil Khan	Indigenous Solar Inverter Air Conditioner Technology with Optimal Demand Response Control using Genetic Algorithm	3.57
FBAS	Dr. Iqra Shahzadi	Blood flow analysis for bifurcated stenotic artery with hybrid nanofluid	0.3



<b>FBAS</b>	Dr Saima Rafique	Aptamer Based Label-free Electrochemical Detection of Oral Cancer Gold Nanostructures	3.98
<b>FOE</b>	Dr. Zareena Kausar	Development of an assistive device for independence and mobility of paraplegic patients	14
<b>IAA</b>	Dr. Ibraheem Haneef	Digital Land Mapping for Mega Projects	13.81
<b>FSS</b>	Shoaib Sultan	Generate Environmental Awareness among Trainee Teachers in Tertiary Education	0.35
<b>AUSOM</b>	Dr. Khuram Shehzad	Positioning for maximal Gain; how the human welfare output of export processing zones in a developing country's context can be maximized	1.77
<b>FBAS</b>	Dr Muhammad Atif	Synthesis and characterization of Core Shell Like Structured Multiferroic Nano-Composites for Energy Storage Application	9.58
<b>FBAS</b>	Dr Rizwan Akram	Development of thermoelectric materials via model simulation and experimental Approach	0.46
<b>FOE</b>	AVM Saleem Tariq	Strengthening and upgradation of electrical engineering	3
<b>FOE</b>	Dr Syed Ahmed Pasha	System Identification of High Dimensional Dynamics Point Process System	1.77
<b>IAA</b>	Dr. M Umer Khan	Reconfigurable energy enhanced architecture for efficient utilization of stored energy	1.77
<b>FBAS</b>	Dr. Saima Rafique	Gold nanoparticles based electrophoretic discrimination of cancer related point mutations	0.47
<b>FOE</b>	Dr. Zareena Kausar	To prepare high school students for college and career (introduction of Robotics and automation)	1
<b>FOE</b>	Dr. Shakil Rehman Shiekh	Workshops for introducing sustainable energy related technologies to school students	0.88
<b>FOE</b>	Dr. Shakil R. Sheikh	Energy Saving in Buildings in Pakistan	0.5
<b>Total million (PKR)</b>			<b>57.21</b>

<b>IGNITE FUNDED PROJECTS</b>			
<b>Faculty</b>	<b>PI/Co-PI</b>	<b>Project Title</b>	<b>Budget Millions (PKR)</b>
<b>FCAI</b>	Dr. Mehdi Hassan	Detecting Food Freshness through Machine Learning and Image Processing	0.03
<b>FOE</b>	Mumajjed ul Mudassir	Socially Aware Smart Home	0.09
<b>FOE</b>	Samina Jamil	Bio Hybrid Electrical Vehical	0.09
<b>FOE</b>	Dr. Muhammad Adil Khan	Design and Development of Zero Energy Buildings based on Indigenously Available Solar and Waste Sewerage Water	0.07
<b>FOE</b>	Dr. Muhammad Adil Khan	Hybrid UPS Based on Super Capacitor Energy Storage and Adjustable Speed Generator for Military and Medical Applications	0.07



<b>FOE</b>	Mumajjed ul Mudassir	Designing and Development of IOT based Psycological Health Monitoring System	0.06
<b>FCAI</b>	Dr. Naveed Bhatti	Water Flow Monitoring System	0.03
<b>FoE</b>	Air Commodore (R.) Tahir Mahmood Khalid	SCADA Based Water Filtering and Supply System	0.04
<b>FoE</b>	Madeeha Uzma	Smart Helmet for Ignition of Bike and Emergency Contact	0.04
<b>FoE</b>	Engr. Salman Tariq	Frequency Controlled Refrigeration	0.03
<b>IAA</b>	Dr. Sohail Iqbal	Design and fabrication of Canal top solar panel system	0.08
<b>FOE</b>	Dr. Zareena Kausar	Design and implementation of aeroponic farming	0.08
<b>FOE</b>	Dr. Shakeel Rehman	Design and fabrication of tree plantation drone	0.08
<b>FOE</b>	Dr. Muhammad Adil Khan	Hybrid electric vehicle	0.08
<b>FOE</b>	Engr. Atiq ur Rehman	Guidance and monitoring system for AU parking	0.08
<b>FOE</b>	Dr. Muhammad Adil Khan	Electric vehicle with regenerative braking and battery protection system	0.07
<b>FOE</b>	Engr. Atiq ur Rehman	Weather data simulation and experimental calculations of heating and cooling loads	0.06
<b>FOE</b>	Dr. Muhammad Adil Khan	Solar power fine dust/smoke removal system using cockroft walton circuit	0.06
<b>FOE</b>	Dr. M. Adil Khan	Controlling solar water pump using variable frequency drive by android application	0.03
<b>FOE</b>	Dr. Muhammad Adil Khan	Design and implementation of shunt active power filter for power quality	0.02
<b>FOE</b>	Dr. Zafarullah Koreshi	Thermoelectric Incubator	0.07
<b>FOE</b>	Dr. Noman Naseer	Embedded System for Automatic Detection of Heart Disease using ECG machine	0.07
<b>FOE</b>	Engr. Rahman R Alyaei	Multi Source (Solar power using a multi-level inverter WAPDA Generator) Power System Variable Load and Automated Shifting	0.07
<b>FOE</b>	Dr. Noman Naseer	Brain Controlled Wheelchair	0.07
<b>FOE</b>	Engr. Hammad A. Nazir	Automatic Vehicle Gear Transmission	0.07
<b>Total million (PKR)</b>			<b>0.37</b>

More SDG projects: [https://au.edu.pk/Pages/QEC\\_WEB/StartupProjects.html](https://au.edu.pk/Pages/QEC_WEB/StartupProjects.html)

## **2. Calls for proposals highlighting sustainability themes.**

## ORIC NEWS & EVENTS

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TODAY 10 AM TO 12 PM PAKISTAN STANDARD TIME ONLINE

**POSSIBLE BENEFITS:**

- Learn about the latest research on climate change and agriculture.
- Meet experts in the field of climate change and agriculture.
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**REGISTER NOW**

**October 14** → Climate Change and Agriculture solutions (AU)

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Up to \$5 Million in seed grant for each startup

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- Finalist Announcement: November 1st
- Winner Announcement: November 15th

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Fw: Reminder | Register Now - Environmental Governance and Climate Finance: Unlocking Pakistan's Self-Sufficiency

Dr. Salman Hassan Khan  
To: Naima Mehmood; Lt. Col. Amir Toor; Mehreen Ishfaq; Muhammad Sheharyar

Follow up. Start by 24 March 2025. Due by 24 March 2025.  
If there are problems with how this message is displayed, click here to view it in a web browser.

IGHD Webinar Programme - Environmental Governance and Climate Finance - Unlocking Pakistan's Self-Sufficiency - March 2025.pdf  
291 KB

How to make the most of your time on the program: <https://www.airu.edu.pk/ghd-webinar-programme>

Sent: Friday, March 21, 2025 12:09 PM

Subject: Reminder | Register Now - Environmental Governance and Climate Finance: Unlocking Pakistan's Self-Sufficiency

[Click Here to Register](#)

**\*\*Please Note:** Webinar attendees will be eligible to apply for a [Certificate of Attendance](#).

### IGHD WEBINAR

## ENVIRONMENTAL GOVERNANCE AND CLIMATE FINANCE: UNLOCKING PAKISTAN'S SELF-SUFFICIENCY

### PRESENTERS:



**DR. ALI TAUQEEER SHEIKH**  
Climate Change and Sustainable Development Expert



**MS. IMRANA TIWANA**  
Head Climate Change, Environment & Sustainability, Beaconhouse National University, Lahore



**MODERATOR:**

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### List of Open Call for Competitive Research Grants

- Erasmus Plus-Call for Proposals
- WIPO Global Awards 2025 Competition-Call for Applications
- CAREC Research Grant
- Pakistan Startup Fund Advisory (PSF) Committee
- KE-EPIC Innovation Challenge-Call for Proposals\*
- GITEX 2025- Call for Startups
- Asian Science Camp Sponsored by PSF-Call for Participation
- MSEC Fellowships-Call for Applications

Admission Office Chat Box jvachat

### 3. Screenshots from AU's internal portal or emails showing calls and approvals

The screenshots display the Air University website's internal portal for research projects. The top screenshot shows a list of completed R&D projects funded by the Higher Education Commission (HEC) and National Engineering & Science Commission (NESCOM). The bottom screenshot shows a list of completed R&D projects funded by the Higher Education Commission (HEC).

**Top Screenshot: List of Completed R&D Projects**

Faculty	PI/Co-PI	Project Title	Budget Millions (PKR)
FCAI	Dr. Mehdi Hassan	Heart Disease Detection using Deep learning and ECG Data	0.07
FCAI	Dr. Mehdi Hassan	X Ray Based Pneumonia Detection	0.07
FCAI	Dr. Mehdi Hassan	Detecting Food Freshness through Machine Learning and Image Processing	0.03
FCAI	Dr. Hafiz Ahmad Jalal	Autonomous Device for Obstacles Detections	0.03

**Bottom Screenshot: List of Completed R&D Projects**

Faculty	PI/Co-PI	Project Title	Budget Millions (PKR)
FOE	Dr. M. Adil Khan	Indigenous Solar Inverter Air Conditioner Technology with Optimal Demand Response Control using Genetic Algorithm	3.57
FBAS	Dr. Tanzeela Shaheen	Development of an Assistive Device to Convert Sign Language into Speech, for Use by Persons with Speech Disability	9.7
FBAS	Dr. Rashid Mahmood	Optimizing Drag and Lift Forces around Obstacles Submerged in thermal non-linear flow fields: Implementation of an Efficient FEM based Solver.	5.57
FBAS	"Dr. Rubina Nasir"	"Study of non linear structure in plasmas with non-maxwellian distributions"	0.21
FBAS	Dr. Muhammad Saqib	The development and application of novel algorithm for two dimensional nonlinear algorithm for two dimensional nonlinear burgers Huxley system	0.31
FBAS	Dr. Iqra Shahzadi	Blood flow analysis for bifurcated stenotic artery with hybrid nanofluid	

**Prepared by:** Quality Enhancement Cell (QEC)  
**Air University Islamabad**  
**For submission to:** QS Rankings - Environmental Impact Category