Heuristic Evaluation

CS-302 Intro to Human Computer Interaction FALL 2020

Group: G1

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Evaluation of the Web Site

https://au.edu.pk/

Dated: January 31st, 2021

NAMAL INSTITUTE

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1.   Executive Summary

1.1. Product and Goals

This report records the heuristic evaluation of the main website (https://au.edu.pk/) of Air University. The goals of this heuristic evaluation were to:

1- evaluate the usability of the website using internationally recognized usability principles also called "heuristics".

2- make a "prioritized list" of issues for the improvement of the website.

3- extract most serious problems from the prioritized list and give recommendations where possible.

The findings along with the recommendations will contribute to improve the interface of the Air University's website.

1.2. Methods

The evaluators involved in the process (Heuristic Evaluation) independently analyzed the UI of the website based on internationally recognized usability principles also called "heuristics". The evaluators individually and independently examine the user interface for about two to three hours each for the evaluation. The evaluators used "Andrews General Usability Heuristics" given in Table 1. Each evaluator explored the website independently and performed multiple tasks, recorded usability problems, their respective heuristic violation and also gave severity ratings.

1.3. Findings

After performing, Heuristic Evaluation, the evaluators has identified 71 problems in total belonging to different general usability heuristics. We selected top 23 problems based on their severity ratings and then based on similarities, grouped few of them to make 14 problem groups overall. We have then described these 14 in detail and proposed solution of each of them in report. The following are most severe problems highlighted in the report:

1.3.1.   Redundant information on Home Page

There is lot of extra duplicate information on Home page. Like Important links section, it is also available at the top navigation bar.

1.3.2.   Obsolete Links/Info in ORIC Research-Funding Opportunities

There are two sub parts in ORIC-Funding Opportunities: 1) "National Funding Opportunities" and 2) "International Funding Opportunities", Here only part one is concerned. All provided links in this section are no more available.

1.3.3.   No Information about Departments

There is no visible information or link that shows all the departments in the university.

1.3.4.   (Expired) Registration Form for Internship(2019) still Available

In Placement Portal, there is a link available for registration for summer internship 2019. (Now it is 2021).

1.3.5.   Irrelevant Option in sign up- Forgot password

There is no need to add "Forgot Password" option in the sign up. It may confuse new novice users.

1.3.6.   Redundant Design

In Top Navigation bar there are separate links for "Downloads", "Advertisements" and "Tenders". When someone opens them it open a common page, from which we can select these three options as well. If this is the case then there is no need of separate links in top nav bar.

1.3.7.   Obsolete or Blocked Website links

In the Top Navigation bar, from "Institutes" Drop down select "Affiliated Institutes", then from side bar click on "Introduction", Here all Affiliated Institutes are present with brief detail and their websites. But These links are erroneous or outdated.

1.3.8.   Home Page – Redundant Content ("Click Here")

The phrase "Click Here" is redundant under the News and Events area because links should be self-explanatory.

1.3.9.   General design of landing page is not user friendly

The general design of the website is not user friendly and looks a bit outdated. There is a need for a section about "FAQs" as well frequently used links.

1.3.10.   Admission Page-incomplete Admission Schedule

No information is given about BS admissions.

1.3.11.   Scholarship Page - Redundant navigation area

On the scholarship page, the information about various kinds of scholarships is available but local navigation area is related to the admission page which doesn't make sense on this page as it is already the part of page named "Admission". The local navigation area of scholarship page should be related to scholarships.

1.3.12.   Faculties- Sub Standard Profile pictures

The profile pictures of a significant amount of faculty members are either substandard or missing all across the website.

1.3.13. No Credential Remember option

Student portal has no option to remember to keep cookies.

1.3.14. Broad Category – Crashed or Unavailable Pages

On whole site there are lot of pages or links which are results in server errors or unavailable pages. We merged all those sub problems i.e. ten in number, to this single category. There explanation is in detail in below sections.

2. Introduction

The evaluators used the Ten heuristics given in Table 1 to evaluate the website. These heuristics are based on Nelson's Ten usability heuristics.

 ➢ **Individual Work**
 The evaluators individually and independently examine the website for about two to three hours. They evaluated the website using the heuristics given in Table 1.

 ➢ **Group Work**
 After completing individual evaluations, the evaluators meet and discussed the usability I ssues of the website's user interface. Then the individual findings were consolidated and a prioritized list of usability problems were created using their respective severity rating.

Table 1: Ten Andrews General Usability Heuristics.

No	Usability Heuristics
1	The system should give appropriate feedback within an appropriate time. (**A01 Feedback**)
2	The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. (**A02 Speak the Users' Language**)
3	The user should be free to explore the system without penalty. (**A03 Reversible Actions**)
4	The same word, phrase, action, or situation should always mean the same thing. (**A04 Consistency**)
5	Prevention is better than cure. Careful design can prevent a problem from occurring in the first place. (**A05 Error Prevention**)
6	Place knowledge in the world. Make objects, actions, and options visible. (**A06 Recognition Rather Than Recall**)
7	Provide accelerators for frequent users, unseen by novice users. Allow users to tailor frequent actions. (**A07 Flexibility and Efficiency of Use**)
8	"Less is more". (**A08 Aesthetic and Minimalist Design**)
9	A good error message helps users recognize, diagnose, and recover from errors. (**A09 Good Error Messages**)
10	Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. (**A10 Help and Documentation**)

2.1. User Profiles

All the user profiles are given below:

2.1.1. HOME

Users that want to visit the main home page and see all the home page content.

2.1.2. ABOUT

➢ Users that want to know about air university.

➢ Users that want to know the vision and missions of AU.

➢ Users that want to know about the board of governors of AU.

➢ Users that want to know about the Vice Chancellor of AU.

➢ Users that want to know about the timeline and history of AU.

➢ Users that want to know the vision and missions of AU.

➢ Users who want to visit AU and know about the direction to AU.

➢ Users who want to know about the directions to AU with the help of Google maps.

2.1.3. ADMISSIONS

➢ Users who want to know why to choose AU.

➢ Users that want to know about Admission schedules.

➢ Users that want to know the Fee structure of AU and Financial Aids provided by AU.

➢ Users who want to know about scholarships provided by AU.

➢ Users who want to know the eligibility criteria for admission in AU.

➢ Users that want to know about the required documents for admissions.

➢ Users that want to know How to apply for admission in AU.

➢ Users that want to know how to prepare for the entry test of AU.

➢ Users who want to know about Late admission policies.

➢ Users who want to know about Transfer Students policy.

2.1.4. FACULTIES

➢ Users who want to know about the faculty of Aerospace Sciences and Strategic Studies.

- Users who want to know about the faculty of Avionics and Aeronautics.

- Users who want to know about the faculty of Basic and Applied Sciences.

- Users who want to know about the faculty of Computing and Artificial Intelligence.

- Users who want to know about the faculty of Engineering.

- Users who want to know about the faculty of Air University School of Management.

- Users who want to know about the faculty of Social Sciences.

2.1.5. RESEARCH

- Users who want to know about the Research Labs in AU.

- Users who want to know about the Journal of Business and economics.

- Users who want to know about the [Erevna Journal of Linguistics and Literature](#).

- Users who want to know about Corporum: Journal of corpus linguistics.

- Users who want to know about the Centre of excellence for CPEC.

- Users who want to know about the National Centre For Cyber Security.

2.1.6. QUALITY ENHANCEMENT CELL (QEC)

- Users that want to know about the QEC of AU.

- Users who want to know about the Organizational Structure (QEC Organogram) of AU.

- Users who want to know about the QEC in AU.

- Users who want to know about the Quality policies of AU.

- Users who want to know about the QEC Profile of AU.

- Users who want to get extra details of individuals in the QEC Profile of AU.

- Users who want to read Guidelines or manuals of QEC.

- Users who want to read Guidelines for Executive Summary.

- Users who want to read Performance Evaluation Standards for HEIs.

- Users who want to read Quality Assurance Manual.

- Users who want to read Rubric Evaluation of SARs Form.

- Users who want to read Self Assessment Manual.

- Users who want to read the University Portfolio Report (UPR).

- Users who wants to read and understand Teaching & Learning Process Survey/Forms

- Users who want Proforma 1 Student Course Evaluation Questionnaire.

- Users who want Proforma 2 Faculty Course Review Report.

- Users who want Proforma 3 Survey of Graduating Students(Engineering).

- Users who want Proforma 3 Survey of Graduating.

2.1.6.1.   Students(Non-Engineering)

- Users who want Proforma 4 Research Student Progress Review Form.

- Users who want Proforma 5 Faculty Survey.

- Users who want Proforma 6 Survey of Department Offering PhD.

- Users who want Proforma 7 Alumni Survey(Engineering).

- Users who want Proforma 7 Alumni Survey(Non-Engineering).

- Users who want Proforma 8 Employer Survey(Engineering).

- Users who want Proforma 8 Employer Survey(Non-Engineering).

- Users who want Proforma 9 Faculty Resume.

- Users who want Proforma 10 Teacher Evaluation Form.

- Users who want to know about Training/Activities/Workshops in AU.

- Users who want to know the minutes of meeting of Training/Activities/Workshops in AU.

- Users who want to get QEC Newsletter.

- Users who want to view QEC Gallery.

- Users who want to know about Environmental Sustainability at Air University.

2.1.7.   OFFICE OF RESEARCH, INNOVATION AND COMMERCIALIZATION (ORIC)

- Users that want to know the objectives and purpose of ORIC at AU.

- Users who want to know the Vision and missions ORIC at AU.

- Users who want to read Research publications under ORIC at AU.

- Users who want to know about Applied Research under ORIC at AU.

- Users who want to know about research funding opportunities.

- Users who want to know about National funding opportunities.

- Users who want to know about International funding opportunities.

- Users who want to know about Capacity Building.

- Users who want to know about Formal Collaborations with Foreign Universities/Companies.

- Users who want to know about Formal Collaborations with National Universities/Companies.

- Users who want to know about AUORIC Team.

- Users who want to know about Success stories of AUORIC.

- Users who want to visit AUORIC Gallery.

- Users who want to visit the News gallery.

2.1.8. CONTACT US

- Users who want to view contact list of AU.

- Users who want to contact executives of AU.

- Users who want to get the email address of AU executives.

2.1.9. LIKHERATURE

Users who wants to visit likhterature website.

2.1.10. PLACEMENT

- Users who want to know about placement and alumni affairs offices at AU.

- Users who want to know goals of AU's placement and alumni affairs office.

- Users who want to know the services provided by AU's placement and alumni   affairs office.

- Users who want to know about graduated students of AU.

- Users who want to know about students of AU.

➢ Users who want to get the evaluation form.

➢ Users who want to get the Alumni card form.

➢ Users who want to get the Internship Recommendation Letter.

➢ Users who want to register for summer internship programs.

2.1.11.   SCHOLARSHIPS

Users that want to know the details of scholarships awarded by AU.

2.1.12.   EMPLOYMENT

➢ Users who want to know about jobs at AU.

➢ Users who want to know about jobs offered by different departments in AU.

➢ Users who want to know about recent jobs (Currently Open) opportunities at AU.

➢ Users who want to know the details (Job Description) of currently open jobs.

    1.   Users who want to apply for currently open jobs.

    2.   Users who want to search jobs.

➢ Users who want to know about AU Web portal.

➢ Users who want to login as an employee.

    1.   Users who want to change their current password.

➢ Users who want to login as a job seeker.

    1.   Users who forgot their password and want a reset.

➢ Users who want to sign up as a job seeker.

2.1.13.   EMAIL

➢ Users that want to access AU Mail server.

➢ Users that want to access AU Students Email.

2.1.14.   DOWNLOADS

➢ Users who want to download academic calendars.

➢ Users who want to download an activity calendar.

- ➢ Users who want to download the Event calendar.
- ➢ Users who want to download policies and publications.

  1. Users who want to download Instructions for Final Examination Summer.

  2. Users who want to download/read Instructions for Mid Semester Examination.

  3. Users who want to download/read AU merit scholarship policy.

  4. Users who want to download/read Tips for good exams.

  5. Users who want to download/read Don'ts of Examination.

  6. Users who want to download/read What constitutes use of UFM in Examination.

  7. Users who want to download/read Penalties for use of UFM in Examination.

  8. Users who want to download Schedule of charges for transcript and degree.

- ➢ Users who want to download Degree supplement Form.

Users who want to download publication performa.

2.1.15. ADVERTISEMENTS

Users who wants to see/download different advertisements by AU.

2.1.16. TENDERS

Users who want to see/download tender notices by AU.

2.1.17. LIBRARY

- ➢ Users who want to know about AU Library.

- ➢ Users who want to see and visit AU Library Catalog.

- ➢ Users who want to see/visit digital repositories of AU.

- ➢ Users who want to know about services provided by AU's Library.

- ➢ Users who want to know about the Resources of AUCL (AIR University Central Library).

- ➢ Users who want to know about the E-Resources.

- ➢ Users who want to read the library handbook.

- ➢ Users that want some useful links related to other libraries.

- Users who want to know the service hours of the library.

- Users who want Contact Info of AU's Library.

2.1.18. STUDENT PORTAL

- Users who want to access Student Portal.

- Users who try to login with Google plus.

- Users who forgot passwords.

2.1.19. CENTRE FOR PROFESSIONAL DEVELOPMENT

- Users who want to visit the Centre for professional development page.

- Users who want to see the introduction of CPD.

- Users who want to visit AU's facebook page.

- Users who want to visit AU's Twitter handle

- Users who want to see different offered courses.

- Users who want to see details of different offered courses.

- Users who want to apply for a course.

- Users who want to print challan Form of already enrolled course.

2.1.20. FMC

Users who want to visit Fazaia Medical College web page.

2.1.21. INSTITUTES

- Users who want to know about FMC.

- Users who want to know about FRPMC.

- Users who want to know about About Multan campus of AU.

- Users who want to know about affiliated institutes of AU.

- Users who want to know about Constituent Units.

2.1.22. AU LMS

- Users who want to visit AU LMS.

- Users who want to visit AU LMS Dashboard.

- Users who want to visit Student LMS.

> Users who want to visit google classrooms.

> Users who need help and want to contact IT helpdesk.

2.1.23. Users who want to hear/read message from the Vice Chancellor

2.1.24. FACEBOOK UPDATES

> Users who want to know updates on Facebook.

> Users who want to visit AU's Facebook page.

> Users who want to like AU's Facebook page.

> Users who want to contact via Facebook page.

2.1.25. QUICK LINKS

> Users who want to know about the office of the Director Academics.

1. Users who want to know about Eligibility criteria for migration to AU.

2. Users who want to download a migration form.

> Users who want to know about the Exam office.

> Users who want to know about the Sport department.

> Users who want to know about the Students Affair Department.

> Users who want to know about AIR university policy on harassment.

> Users who want to know about the journal of business & Economics (JBE).

> Users who want to know about "Life at AIR University".

> Users who want to know about the Centre of Professional development.

> Users who want to know about Microsoft products Provided by Air university.

2.1.26. NEWS AND UPDATES

> Users who want to know the latest News .

1. Users who want to know News about the latest happenings at AU.

2. Users who want to know News about updates in external relations of AU with other universities.

> Users who want to read the Vice Chancellor's message.

➢ Users who want to know about Admissions at AU.

➢ Users who want to know about Job opportunities and placements .

2.2. Extent of Evaluation:

The evaluators analyzed all the major parts of the website in detail. The evaluators focused on the frequently used areas of the website and ignored the less frequently used ones. The main goal of the evaluators was to discover all the critical usability issues using the set of internationally recognized usability principles also called "heuristics" and create a prioritized list of problems. The findings of this evaluation along with the recommendations will be useful for the future improvement of the Air University's website.

3. Evaluation Environment:

The evaluation environment is described by the following :

Table 2: Evaluation Environment

Evaluator	Qazi Arsalan Shah	Imran Khan	Muhammad Musawar Baig	Shahrukh Khan
Age	20	21	21	21
Sex	Male	Male	male	Male
Web Browser	FireFox	Google chrome	Firefox-83.0	Google chrome
Operating System	Ubuntu 18.04.5 LTS (Debian Based)	Microsoft Window 10,pro education	Ubuntu 20.04.1 LTS	Microsoft Window 10
Internet Connection	6 MBPS PTCL DSL Wireless	1mb,telenor	2 mbps, Zong 4G Bolt+, wireless	1 MBPS, Jazz
Laptop Screen Size	14" Led	15.6"	15.60"	14" LED
Screen Colours	32-bits	32-bits	32-bits	32-bits
Screen Resolution	1,366 x 768 pixels	1920 x 1080 pixels	1366x768	1336 x 768
Browser Resolution	1,366 x 768 pixels	1920 x 1080 pixels	1366x768	1336 x 768

Date of Evaluation	January 30th,2021	January 30th,2021	January 30th,2021	January 30th,2021
Time of Evaluation				

4.   Positive Impressions:

4.1.   Comprehensive Nature:

All the significant information about the University is present on the website in detail (Figure: 1). There is good amount of content in overall website. One can easily navigate to LMS , placement center, employment and student portals etc.
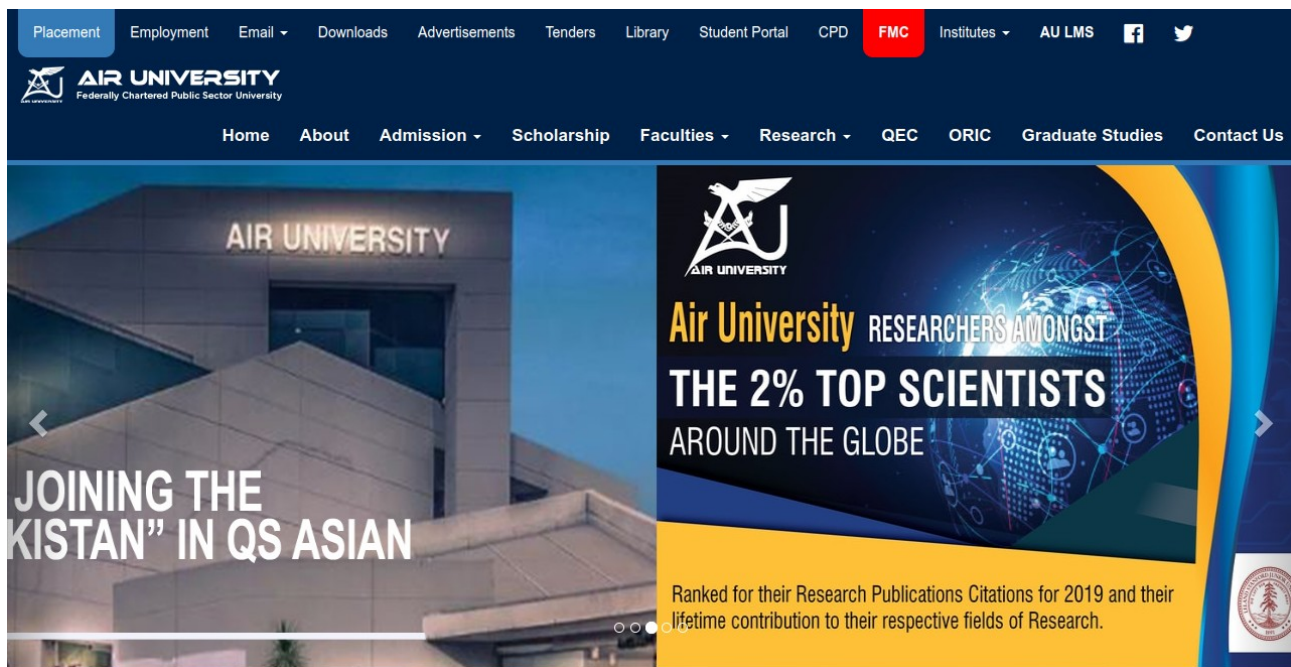
Figure 1: Comprehensive Nature of AU's website.

4.2.   Good Loading Time Complete Website:
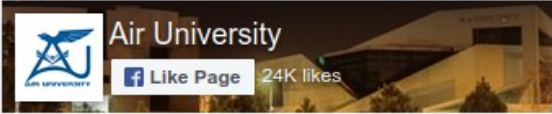
There is no such issue of loading time in whole website. Main home page (landing) opens in a very reasonable time.

4.3.   Unique Thing from other University Websites / See AU's Facebook feed from Home page:

At the bottom of home page, there is a sub-section for Facebook feeds, one can easily scroll in that section and see relevant news and updates staying on the main website of AU (Figure: 2).

Figure 2: AU's Facebook feed accessable from website's home page.

5. Analysis of Main Problems

5.1. Redundant information on Home Page

There is a lot of duplicate information on Home page. For example, "Important links" section, it is also available at the top navigation bar on Home page. VC Message in from about section is also visible on Home page.
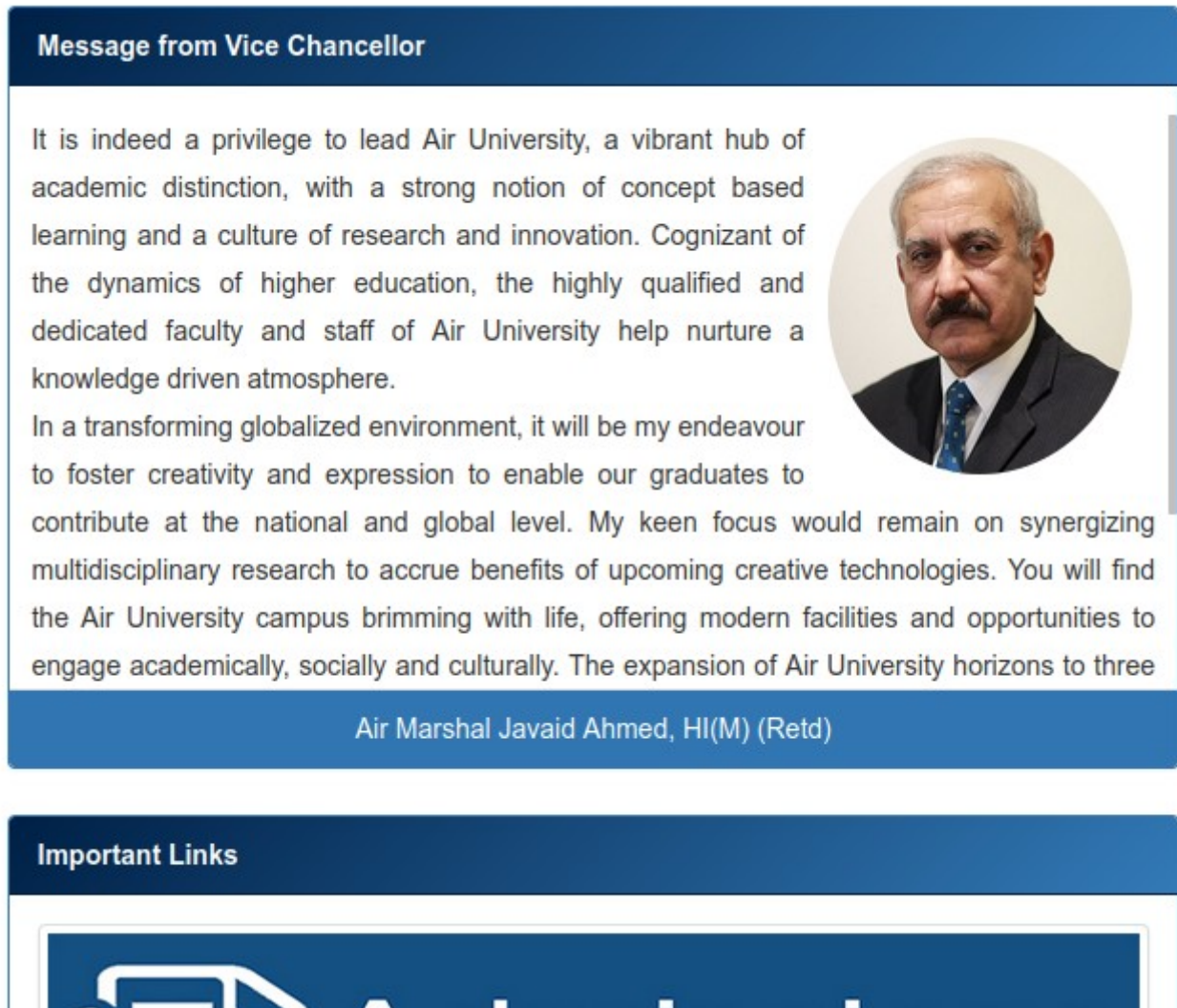
Figure 3: Redundant information on Home Page.

5.2. Obsolete Links/Info in ORIC Research-Funding Opportunities

There are two sub parts in ORIC-Funding Opportunities 1) "National Funding Opportunities" and 2) "International Funding Opportunities",
Here only part one is concerned. All provided links in this sections are no more available i.e. page not found error.

Figure 4: Obsolete Links/Info in ORIC Research-Funding Opportunities-1.

Figure 5: Obsolete Links/Info in ORIC Research-Funding Opportunities-2.

5.3.   No Information about Departments

There is no visible information or link that shows all the departments in the university.
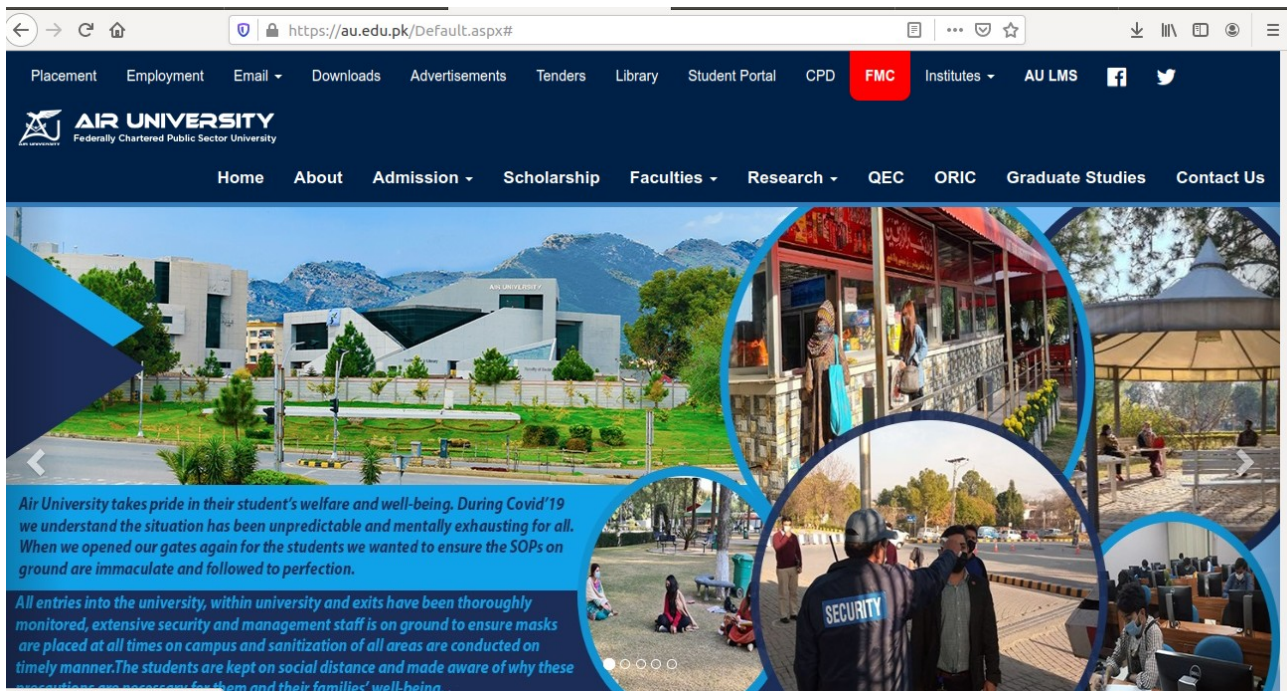
Figure 6: No Information about Departments.

5.4.   (Expired) Registration Form for Internship(2019) still available

In Placement Portal, there is a link available for registeration for summer internship 2019. (Now it is 2021).

Figure 7: (Expired) Registration Form for Internship(2019) still available.

5.5. Irrelevant Option in sign up- Forgot password

There is no need to add "Forgot Password" option in the signup. It may confuse new novice users. And try to make interface a bit good.

Figure 8: Irrelevant Option in sign up- Forgot password

5.6. Redundant Design

In Top Navigation bar there are separate links for "Downloads", "Advertisements" and "Tenders". When someone opens them it open a common page, from which we can select these three options as well. If this is the case then there is no need of separate links in top navigation bar. There should be one common link for all.

Figure 9: Redundant Design.

5.7. Obsolete or Blocked Website links

In the Top Navigation bar, from "Institutes" Drop down select "Affiliated Institutes", then from side bar click on "Introduction", Here all Affiliated Institutes are present with brief detail and their websites. But These links are erroneous or outdated.

Figure 10: Obsolete or Blocked Website links-1.

Figure 11: Obsolete or Blocked Website links-2.

5.8. Home Page – Redundant Content ("Click Here")

The phrase "Click Here" is redundant under the News and Events area because links should be self-explanatory.
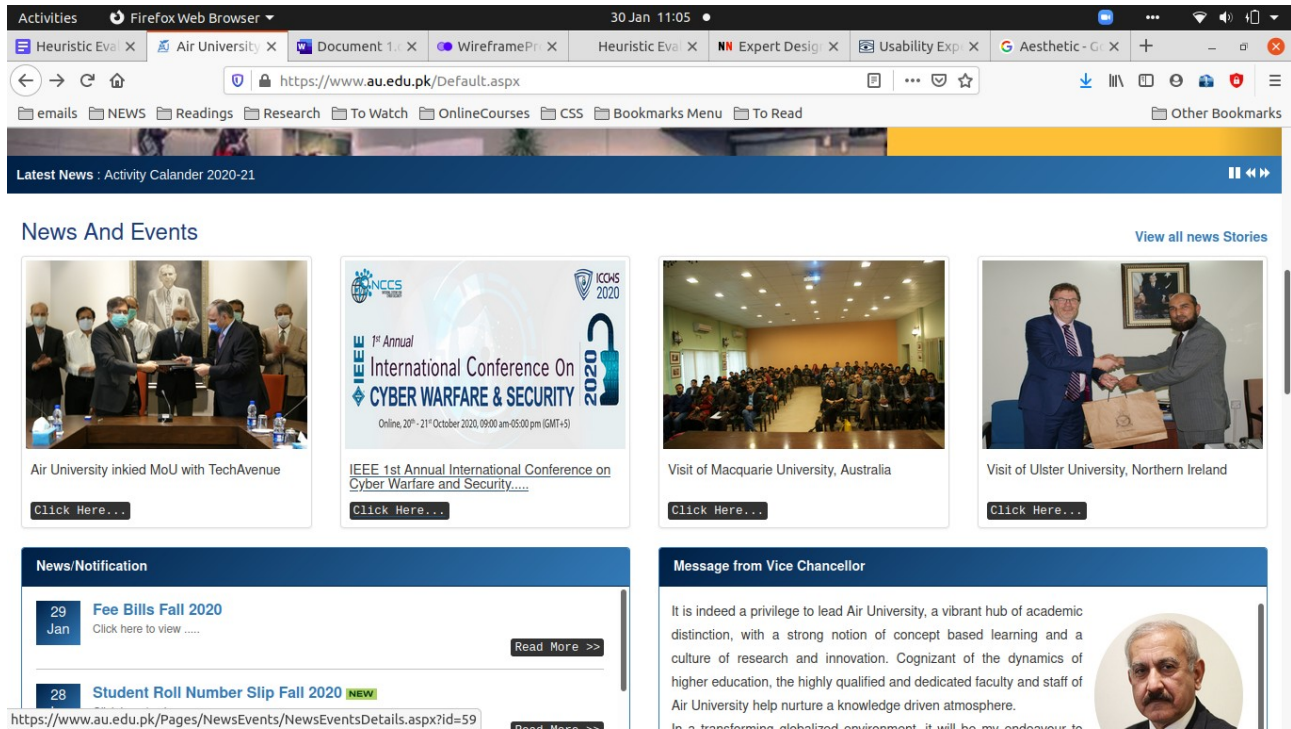
Figure 12: Home Page – Redundant Content ("Click Here").

5.9. General design of landing page is not user friendly

The general design of the website is not user friendly and looks a bit outdated. There is a need for a section about "FAQs" as well frequently used links.
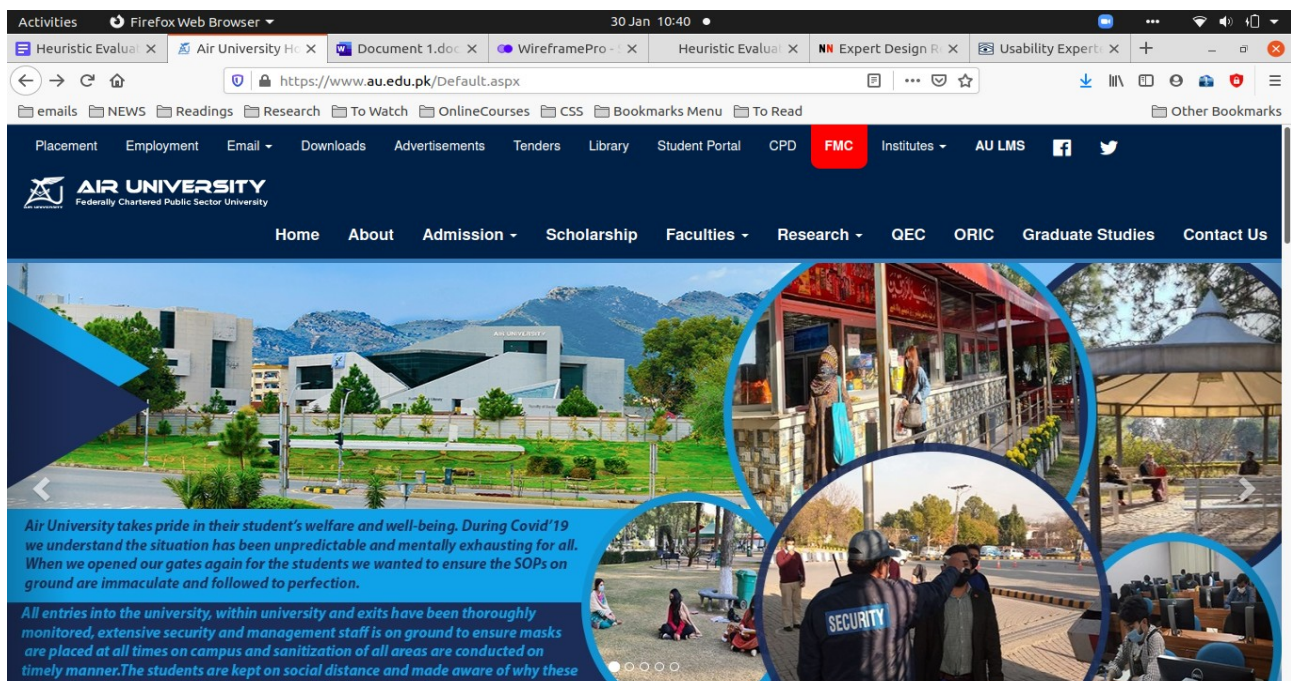
Figure 13: General design of landing page is not user friendly.

5.10. Admission Page-incomplete Admission Schedule

No information is given about **BS** admissions.

Figure 14: Admission Page-incomplete Admission Schedule.

5.11. Scholarship Page-redundant Navigation Area

On the scholarship page, the information about various kinds of scholarships is available but local navigation area is related to the admission page which doesn't make sense on this page as it is already the part of page named "Admission". The local navigation area of scholarship page should be related to scholarships.

Figure 15: Scholarship Page-redundant Navigation Area.

5.12. Faculties- Sub Standard Profile pictures

The profile pictures of a significant amount of faculty members are either substandard or missing all across the website.
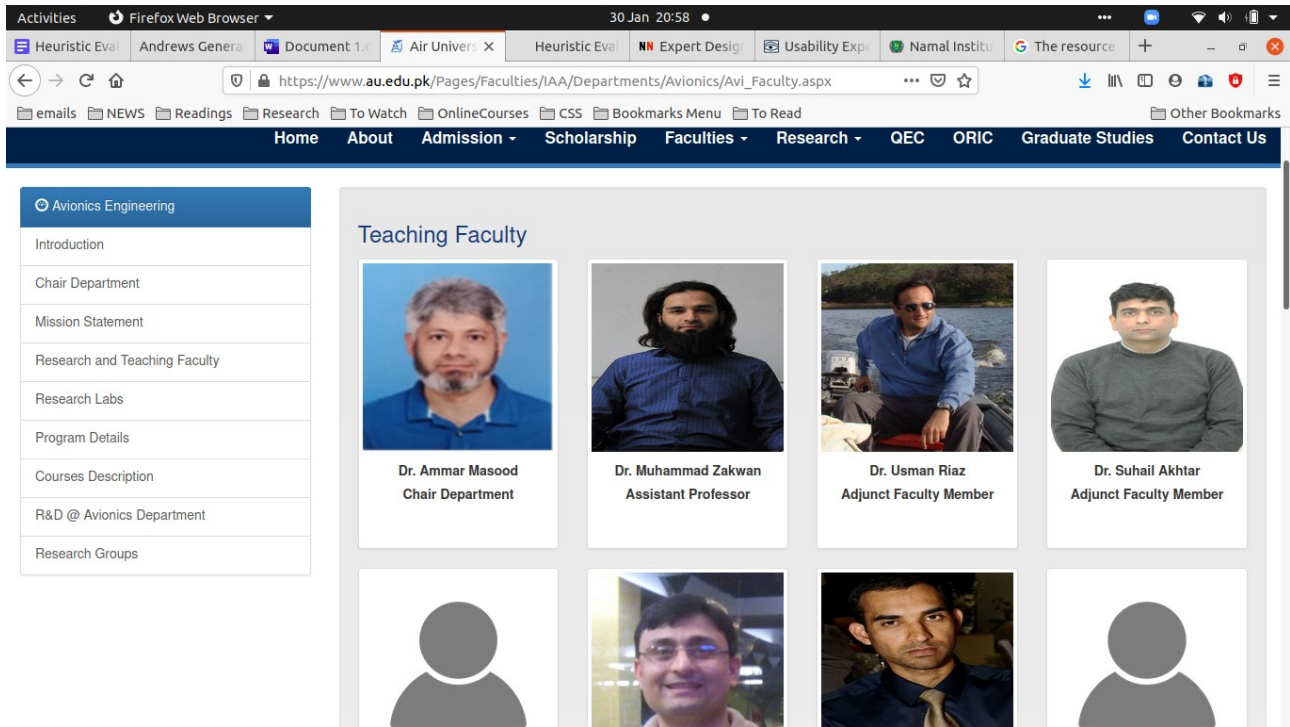
Figure 16: Faculties- Sub Standard Profile pictures.

5.13. No Credentials Remember option

Student portal has no option to remember credentials.

Figure 17: No Credentials Remember option.

5.14. Broad Category – Crashed or Unavailable Pages

On whole site there are lot of pages or links which results in server errors or unavailable pages. We merged all those sub problems i.e. ten in number, to this single category. List of ten sub problems in this category are given below:

5.14.1.　Back End (Server) Error Not Handled:

Errors do occur, but it should be properly handled. There must be a proper error message displayed to users. It may confuse the new novice users. See the screen shot to see the error.

Figure 18: Back End (Server) Error Not Handled-1
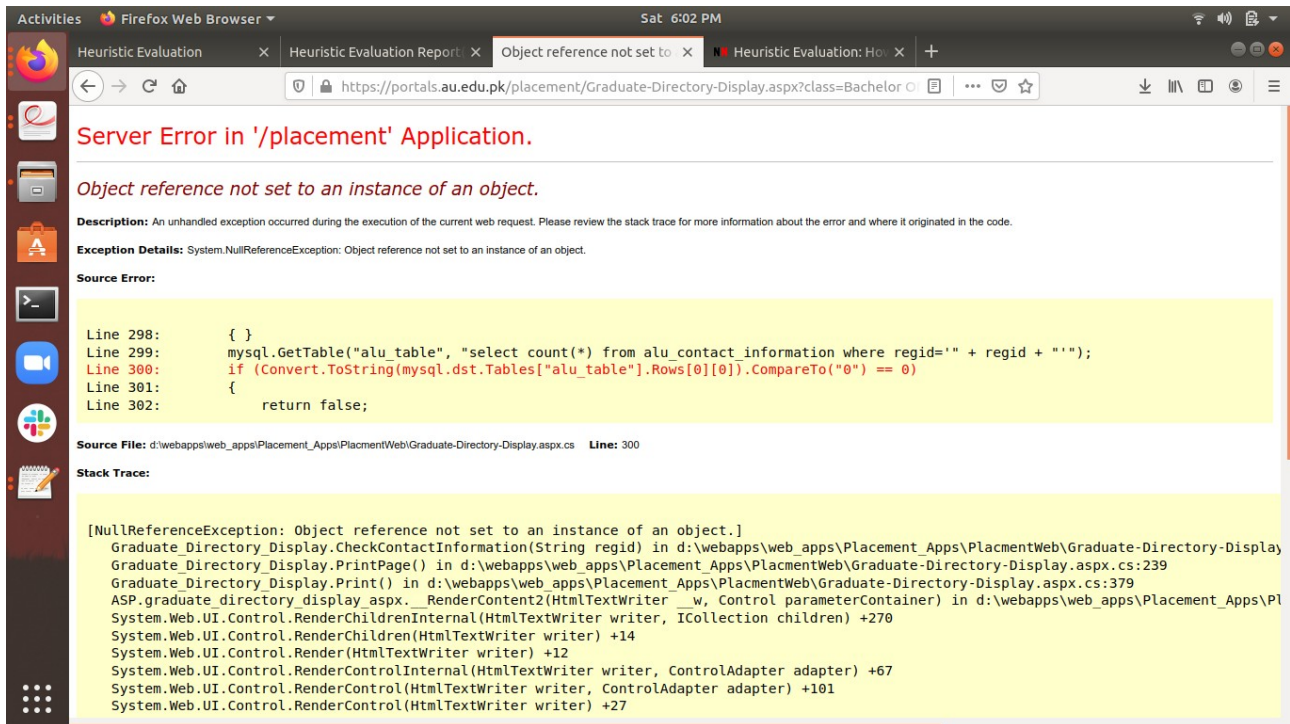
Figure 19: Back End (Server) Error Not Handled-2

5.14.2. Unavailable page

Looks like page has been removed and still its interface(button) is present.
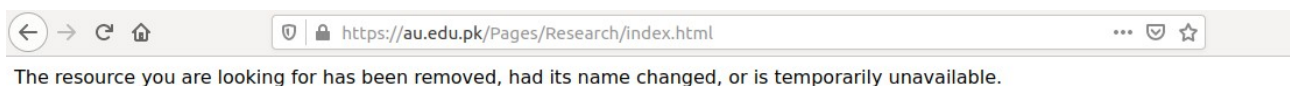
Figure 20: Unavailable page.

5.14.3.　　Home Page – Poor Error Message

When the user clicks any of the three links under the RESEARCH heading at the bottom right corner of the screen, the user gets this error "Service Unavailable Error 503". It will be hard for a novice user to understand the meaning of this error message.
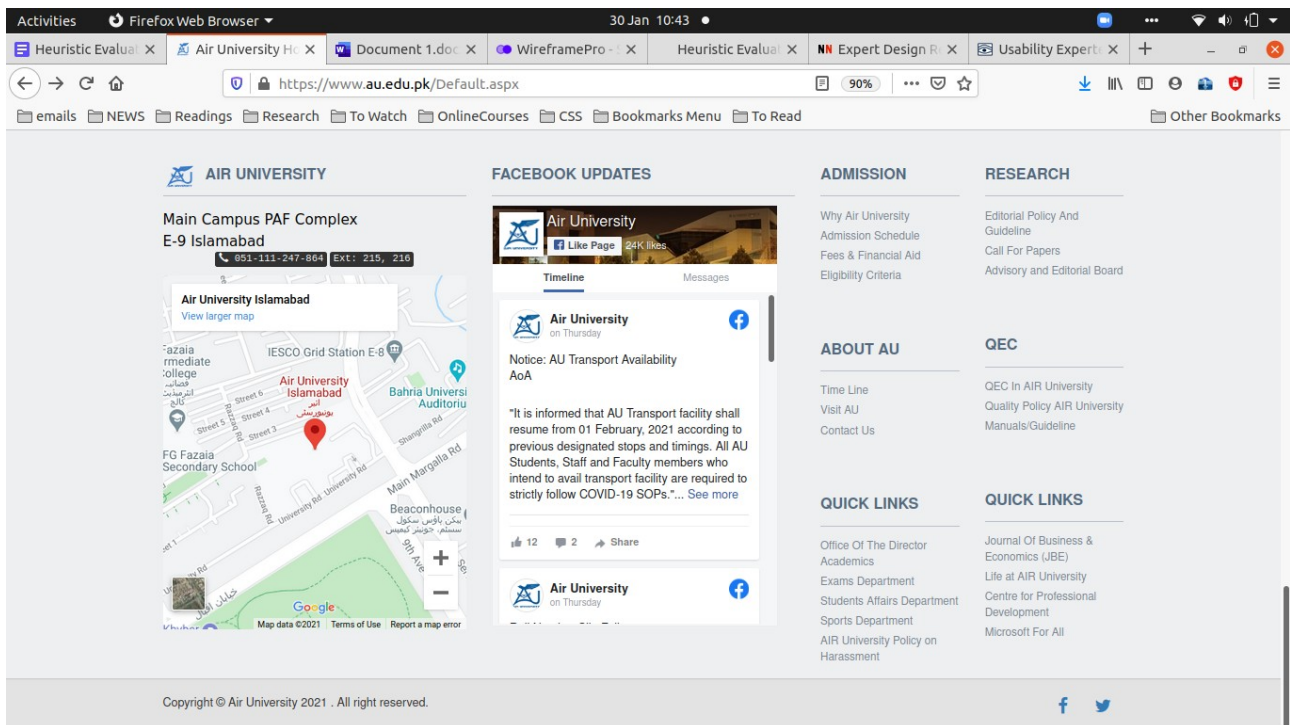
Figure 21: Home Page – Poor Error Message

5.14.4.　　Faculties – DASS's Unavailable Page

"DASS" leads us to an unavailable page.
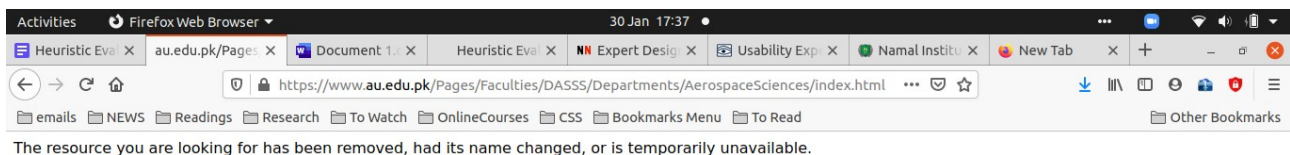
Figure 22: Faculties – DASS's Unavailable Page.

5.14.5. Faculties – Avionics and Aeronautics (IAA)'s Unavailable Page

"Faculty Of IAA" leads us to an unavailable page.

Figure 23: "Faculty Of IAA" leads us to an unavailable page.

5.14.6.　　　Faculties – Faculty Of Applied Sciences' Unavailable Page

"Faculty Of Applied Sciences" leads us to an unavailable page.

Figure 24: "Faculty Of Applied Sciences" leads us to an unavailable page.

5.14.7. Library- Crashed Page - Library Catalog

When you click on "Library Catalog" in Library section (FromTop Nav bar of Home Page, click on Library), It opens a new tab at => (111.68.96.103:8082//) but we can't connect to the server. If it is the error due to some proxy settings, there must be a proper error message.

Figure 25: Library- Crashed Page - Library Catalog-1

Figure 26: Library- Crashed Page - Library Catalog-2

5.14.8.　　Library- Crashed Page - AU Repository

When you click on "AU Repository" in Library section (FromTop Nav bar of Home Page, click on Library), It opens a new tab at => (http://111.68.96.103:8080/jspui) but we can't connect to the server. If it is the error due to some proxy settings, there must be a proper error message.
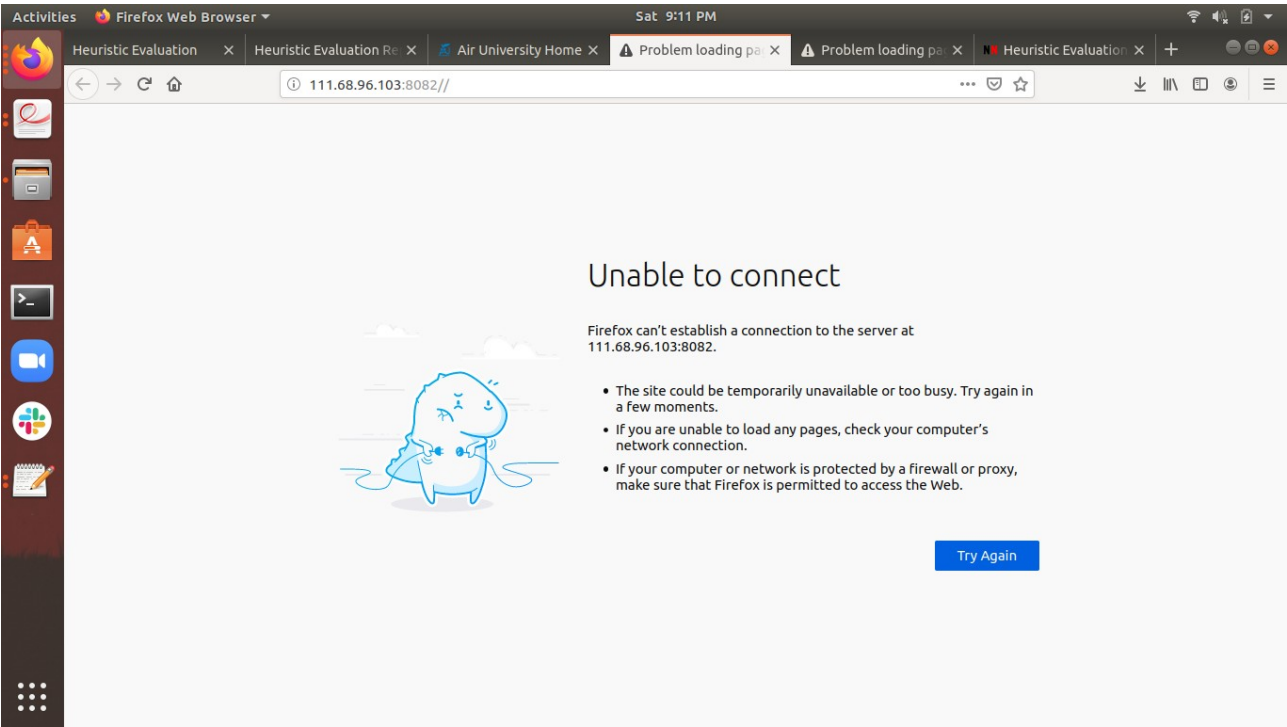
Figure 27: Library- Crashed Page - AU Repository.

5.14.9. Student Portal Displays System Oriented Error

System displays Error which novice user can not understand.
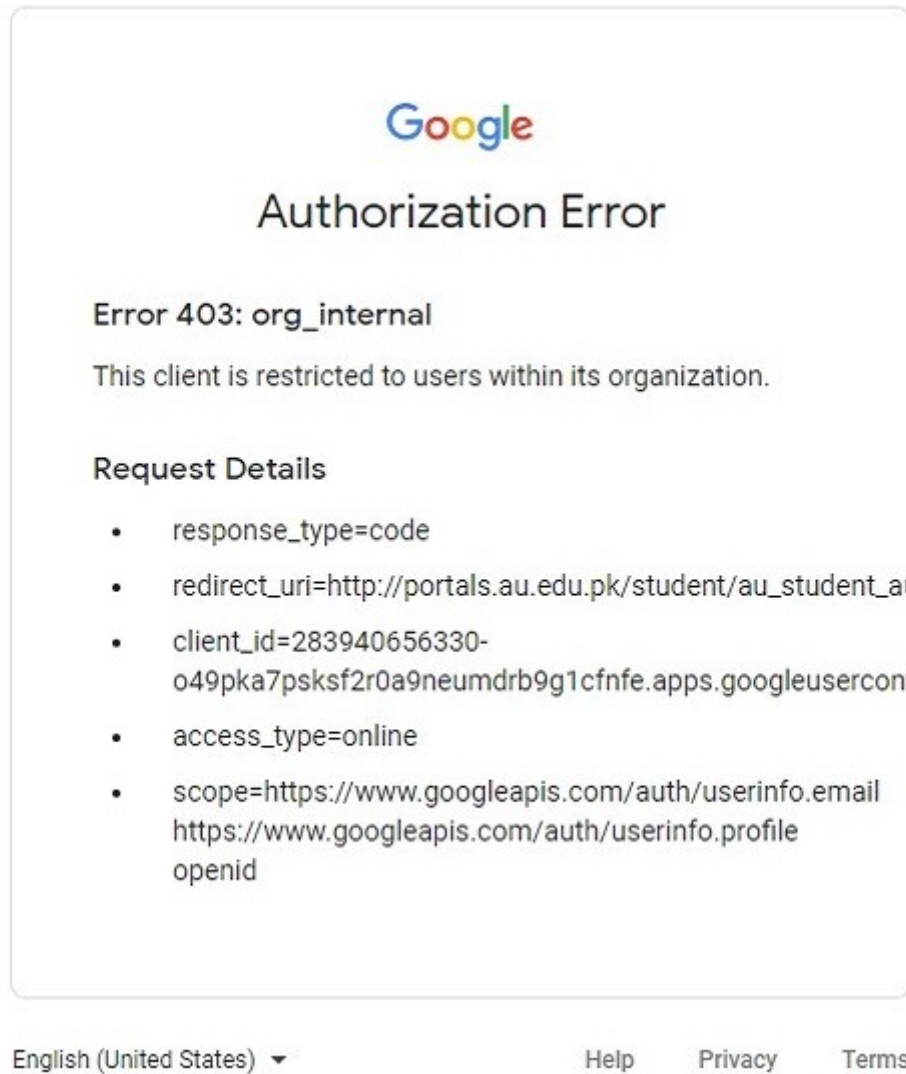
Figure 28: System displays Error which novice user can not understand.

5.14.10.   Student Affairs Department's introduction page is crashed

In the main page if user clicks the Student Affairs Department in Quick links and after this if user click the introduction in left side bar then server goes down.

Figure 29: Student Affairs Department's introduction page is crashed.

6.   Catalogue of all located Problems:

No	Short Title	Description	Screenshot	Heuristic	How Reproducible	Found By				Severity				
						Q	M	I	S	Q	M	I	S	Av
1	Redundant information on Home Page	There is lot of extra duplicate information on Home page. Like Important link section, it is also available at the top nav bar. VC Message is in about us section.	a/p19	Aesthetic and Minimalist Design	Go to Home page. And see the page. Link :https:// au.edu.pk/Def ault.aspx	Y	Y	Y	Y	4	4	4	4	4
2	Back End (Server) Error Not Handled	Errors do occur, but it should be properly handled. There must be a proper error message displayed to users. It may confuse the new novice users. See the screen shot to see the error.	a/p23	Good Error Messages	In Placement portal, Click on graduate directory or student directory(http s://portals.au. edu.pk/place ment/graduati ng_directory.a spx). Then click any of the links on that page.	Y	-	-	Y	4	4	4	4	4
3	Obsolete Links/Info in ORIC Research-Funding Opportunities	There are two sub parts in ORIC-Funding Opportunities 1) "National Funding Opportunities" and 2) "International Funding Opportunities", Here only part one is concerned. All provided links in this sections are no more available.	a/p15	Aesthetic and Minimalist Design	Go to ORIC in main menu bar and then select from the side-bar "Research Funding opportunities then in it click on "National Funding Opportunities" and see any of the given links in it.	Y	-	-	-	4	3	3	4	3.5
4	Unavailable page	Looks like page has been	a/p12	BUG - Good Error	Go to home page, in	Y	Y	Y	Y	3	3	3	4	3.25

#	Name	Description	Ref	Category	Location									
		removed and still its interface(button) is present.		Messages	menu bar in research section click on research lab, it will open a page sub page in it. then from he side bar click on RESEARCH. Link - https://au.edu.pk/Pages/Research/index.html									
5	Home Page – Poor Error Message	When the user clicks any of the three links under the RESEARCH heading at the bottom right corner of the screen, the user gets this error "Service Unavailable Error 503". It will be hard for a novice user to understand the meaning of this error message.	m/p4	Good Error Messages	Home page (Start -> click any of three links under the heading RESEARCH at the bottom right side of the home page)	-	Y	-	-	3	4	2	4	3.25
6	Faculties – DASS's Unavailable Page	"DASS" leads us to an unavailable page.	m/p17	Good Error Messages	Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty Aerospace Sciences and Strategic Studies", then click on "DASS" in the local navigation bar present on the left side.)	-	Y	Y	-	3	3	3	4	3.25

#	Title	Description	ID	Heuristic	Steps									
7	Faculties – Avionics and Aeronautics (IAA)'s Unavailable Page	"Faculty Of IAA" leads us to an unavailable page	m/p18	Good Error Messages	Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty of Avionics and Aeronautics (IAA)", then click on "Faculty Of IAA" in the local navigation bar present on the left side.)	Y	Y	Y	-	3	3	3	4	3.25
8	Faculties – Faculty Of Applied Sciences' Unavailable Page	"Faculty Of Applied Sciences" leads us to an unavailable page.	m/p19	Good Error Messages	Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty Of Basic & Applied Sciences", then click on "Faculty Of Applied Sciences" in the local navigation bar present on the left side.)	-	Y	Y	-	3	3	3	4	3.25
9	No Information about Departments	There is no visible information or link that shows all the departments in the university.	a/p2	Consistency	Go to home page.	Y	-	-	-	3	3	3	3	3
10	(Expired) Registration Form for Internship(2019) still Available	In Placement Portal, there is a link available for registeration for summer internship 2019. (Now it is 2021).	a/p17	Aesthetic and Minimalist Design	Go to "Placement" portal an the top of main home page (Top Nav bar). Then from the article section	Y	-	-	-	3	3	3	3	3

| #	Title	Description	Ref	Heuristic	Location									
					(Sidebar) see "Registeration Form for 2019 Summer Internship".									
11	Irrelevant Option in sign up- Forgot password	There is no need to add "Forgot Password" option in the signup. It may confuse new novice users. And try to make interface a bit good.	a/p27	Consistency	https://portals.au.edu.pk/Jobs/candidate/signup.aspx	Y	-	-	-	4	3	3	2	3
12	Redundant Design	In Top Navigation bar there are sperate links for "Downloads", "Advertisements" and "Tenders". When someone opens them it open a commoon page, from which we can select these three options as well. If this is the case then there is no need of separate links in top nav bar. There should be one common link for all.	a/p30	Asthetic and Minimilistic Design	Go to home page, in top navigation bar click on either "Downloads" or "Advertisements" or "Tenders". Link - https://www.au.edu.pk/Pages/AUInfo/downloads.aspx#	Y	Y	Y	Y	3	3	3	3	3
13	Library- Crashed Page - Library Catalog	When you click on "Library Catalog" in Library section (FromTop Nav bar of Home Page, click on Library), It opens a new tab at => (111.68.96.103:8082//) but we can't connect to the server. If it is the error due to some proxy settings, there must be a proper error	a/p31	Good Error Messages	Go to home page, in top navigation bar click on "Library", then In the side bar click on "Library Catalog". Link - 111.68.96.103:8082//	Y	Y	-	Y	4	3	2	3	3

|														
		message.												
14	Library-Crashed Page - AU Repository	When you click on "AU Repository" in Library section (FromTop Nav bar of Home Page, click on Library), It opens a new tab at => (http://111.68.96.103:8080/jspui) but we can't connect to the server. If it is the error due to some proxy settings, there must be a proper error message.	a/p32	Good Error Messages	Go to home page, in top navigation bar click on "Library", then In the side bar click on "AU Repository". Link - http://111.68.96.103:8080/jspui	Y	Y	-	Y	4	3	2	3	3
15	Obsolete or Blocked Website links	In the Top Navigation bar, from "Institutes" Dropdown select "Affiliated Institutes", then from side bar click on "Introduction", Here all Affliated Institutes are present with brief detail and their websites. But These links are erroneous or outdated.	a/p36	Aesthetic and Minimalist Design	See Top Navigation bar on Home page - From "Institutes" Dropdown select "Affiliated Institutes", then from side bar click on "Introduction", Here all Affliated Institutes. Example Link : https://www.au.edu.pk/Pages/AffilatedInstitutes/www.fcoe.edu.pk	Y	-	-	-	3	3	3	3	3
16	Home Page – Redundant Content ("Click Here")	The phrase "Click Here" is redundant under the News and Events area because links should be self-explanatory.	m/p3	Aesthetic and Minimalist Design – Speak the Users' Language		-	Y	-	-	3	3	3	3	3
17	General	The general	m/p8	Flexibility		Y	Y	Y	Y	3	3	3	3	3

#	Issue	Description	Ref	Heuristic	Steps									
	design of landing page is not user friendly	design of the website is not user friendly and looks a bit outdated. There is a need for a section about "FAQs" as well frequently used links		and Efficiency of Use										
18	Admission Page- incomplete Admission Schedule	No information is given about BS admissions.	m/p10	Flexibility and Efficiency of Use	Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then select "Admission Schedule")	-	Y	-	-	3	3	3	3	3
19	Scholarship Page- redundant navigation area	On the scholarship page, the information about various kinds of scholarships is available but local navigation area is related to the admission page which doesn't make sense on this page as it is already the part of page named "Admission". The local navigation area of scholarship page should be related to scholarships.	m/p14	Aesthetic and Minimalist Design	Home page (Start -> click on the "Scholarship" in the main navigation bar.)	-	Y	-	-	3	3	3	3	3
20	Faculties- Sub Standard Profile pictures	The profile pictures of a significant amount of faculty members are either substandard or missing all across the website.	m/p22	Aesthetic and Minimalist Design	Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty of Avionics and	-	Y	-	-	3	3	3	3	3

No	Title	Description	Image	Heuristic	Page									
					Aeronautics (IAA)", then select "Department of Avionics Engineering" from the local navigation bar. And then select "Research and Teaching Faculty") Note: We are just mentioning one department as a sample. This problem is similar across all the departments and with a significant amount of profile pictures present on the AU website.									
21	Student Portal Displays System Oriented Error.	System displays Error which novice user can not understand.	I/7.png	Good Error Messages	Pages/Student_Portal	-	-	Y	-	3	3	3	3	3
22	No remember option	Student portal has no remember option.	I/19.png	Speak the Users' Language	Pages/Student_Portal	-	Y	Y	-	3	3	3	3	3
23	Student Affairs Department's introduction page is crashed	In the main page if user clicks the Student Affairs Department in Quick links and after this if user click the introduction in left side bar then server goes down.	S/p16	Error Message	page/StudentAffairs/exam_introduction	-	-	-	Y	3	3	3	3	3

#	Title	Description	ID	Heuristic	Steps									
24	Click on "View all news stories leads to crashed page"	Looks like a backend server error. There should be a proper error message so that novice user may not get confused.	a/p1	BUG - Good Error Messages	Go to home page, in News and Events section , click on "View All News Stories" Link - https://au.edu.pk/Pages/NewsEvents/AllNewsEvents.aspx	Y	-	-	Y	3	3	2	3	2.75
25	Duplicacy of About_AU Side bar	When you click contact us page from navigation bar, here opens contact us page. But its side bar is similar as about AU page side bar.	a/p9	Aesthetic and Minimalist Design	Go to Contact us then see the side bar (Article section).	Y	Y	-	Y	3	3	2	3	2.75
26	Obsolete/ Old Info in ORIC-IFO	In ORIC-Research Funding Opportunities there is a section "International Funding Opportunities", In this section many given links are leads to page not found i.e. deleted info and on some links page crashes. And few links are working.	a/p16	Aesthetic and Minimalist Design	Go to ORIC in main menu bar and then select from the side-bar "Research Funding opportunities then in it click on "International Funding Opportunities" and see all the given links in it. Link : https://au.edu.pk/Pages/ORIC/oric_research_funding_opportunities.aspx	Y	-	-	-	3	2	2	4	2.75
27	Bad Design,Colors and Fonts in Placement-Subsection	Font is bit small, so it is effecting overall readability. Design is also not good. Extra space on both sides is available. Side	a/p22	Consistency	https://portals.au.edu.pk/placement/alumni_directory.aspx	Y	-	-	-	3	3	2	3	2.75

#	Title	Description		Heuristic	Link / Steps									
		bar is very small it can be made much better. Rather Placing a long list on that page, It should be designed in sub setions to make is more interactive and clean in terms of visibilty.				Y								
28	Different Options doing same thing	In Jobs portal, there is a side bar from we can select different options. And as their name suggest, they are meant to do different work. But few of them do same thing as others do. Like Click on "Home" and "About AU Web Portal" lands you on the same home page of jobs portal i.e. doing nothing.	a/p25	Speak the Users' Language or Consistency	https:// portals.au.edu.pk/jobs/ (Home Page) https://portals.au.edu.pk/jobs/Default.aspx (Same Home Page) https://portals.au.edu.pk/jobs/Default.aspx# (Same Home Page)	Y	Y	-	-	3	3	2	3	2.75
29	Un available page (AU Information System)	Looks like page has been removed and still its interface(button) is present.	a/p29	BUG - Aesthetic and Minimalist Design	Go to home page, in top navigation bar click on either "Downloads" or "Advertisements" or "Tenders", then In the side bar click on "AU Information System". Link - https://www.au.edu.pk/Pages/AUInfo/index.html	Y	Y	-	-	3	3	2	3	2.75
30	No need of news in downloads	Extra info, no need of that.	S/p1	Aesthetic and Minimalist	Pages/ AUInfo/ downloads.as	-	Y	-	Y	3	3	2	3	2.75

#	Title	Description	Code	Heuristic	Location									
	section.			Design	px									
31	Slow Loading time of CPEC update	if user clicks the news updates from side bar then response time is very high.	S/p4	Feedback	Pages/CPEC/cpec_about_us.aspx	-	-	-	Y	3	3	2	3	2.75
32	FMC – Empty Link (Obsolete Link)	In the main page if user clicks the Constituent Units from Institutes and then user can't see the Website of Fazia Medical College because website is empty.	S/p17	Visibility of System Status	pages/ Institutes	-	-	-	Y	3	3	2	3	2.75
33	What to type in search bar	There is no proper placeholder or example for new users, what should they type in search. There must be a placeholder text so that user can get some idea what to type.	a/p8	Recognition Rather Than Recall	Go to Contact us page and see search bar. Link : https://au.edu.pk/Pages/About/Contact_Us.aspx	Y	Y	Y	Y	3	2	2	3	2.5
34	No Highlighted (Active) Links (whole website)	This is a common bug or issue in all pages of AU website. User can't see active tabs/links in which he is.	a/p11	Consistency	Go to Any of the links in Navigation bar (main menu) and see side bars.	Y	Y	-	-	2	3	2	3	2.5
35	Home Page – Quality of the picture	The picture of the Air university is of low resolution which is giving an odd look to the home page.	m/p2	Aesthetic and Minimalist Design	Home Page	-	Y	Y	-	2	3	3	2	2.5
36	Faculties – Inconsistent Structure	"Air University School of Management" leads us to a page whose structure is completely different from the	m/p21	Consistency	Home page (Start -> click on the "Faculties" in the main navigation bar, select "Air University	-	Y	-	-	2	2	3	3	2.5

#	Name	Description	Code	Heuristic	Location									
		main website.			School of Management".)									
37	What ORIC and CRC means	ORIC and CRC are difficult to understand for user.	S/p2	Recognition rather than recall	On Home page	-	-	-	Y	2	2	3	3	2.5
38	Inconsistant Design of portals (Placement and Employment)	Complete layout of portals is different from AU main website's layout.	a/p20	Consistency	https://portals.au.edu.pk/placement/ https://portals.au.edu.pk/jobs/	Y	Y	Y	-	2	2	3	2	2.25
39	No Navigation bar in placement Portal	There must be atleast a proper button for users to navigate back to the AU Home page.	a/p24	Speak the Users' Language	https://portals.au.edu.pk/placement/ From Home page, in Top nav bar click on Placement""	Y	-	-	-	2	3	2	2	2.25
40	Duplicacy of FMC	There is a redundancy, separate link to FMC is placed in Top Navigation bar and it is also present in "Institutes" (In Top NavBar) drop down.	a/p35	Aesthetic and Minimalist Design	See Top Navigation bar on Home page	Y	Y	-	Y	2	2	2	3	2.25
41	No Contact Form (Send us message)	In Contact us page, there should be a contact us form. SO that users can easily type their message and send to AU.	a/p40	Flexibility and Efficiency of Use	Contact Us from main menu bar : https://au.edu.pk/Pages/About/Contact_Us.aspx	Y	-	-	-	2	2	2	3	2.25
42	Hard to Navigate	The AU is hard to navigate because you can easily lose your way in the website. The names or links of the various pages (like Home,	m/p6	Recognition Rather Than Recall		Y	Y	Y	-	2	2	3	2	2.25

#	Title	Description		Heuristic	Path									
		About, Admission…, Graduate Studies and Contact Us) in the website that you are currently visiting is not highlighted in the main navigation bar as well as the local navigation area. This problem occurs all across the website which makes it hard to user because user must remember the page that He or She is visiting.												
43	About Page-Not User friendly Search Area	The search area is not appropriate because there is no place holder text to guide the user to for searching. The user may get confuse on what basis he has to search because there is no placeholder text in the search box to guide the user.	m/p7	Recognition Rather Than Recall		Y	Y	Y	-	2	2	2	3	2.25
44	No search area to search the whole website	There is no search area to search the whole website which makes it hard to find the stuff that one is looking for.	m/p9	Flexibility and Efficiency of Use		-	Y	-	-	1	3	3	2	2.25
45	Admission Page-lack of information in section "How to Apply"	In this section, it is mentioned that the admissions are closed but no information about when the upcoming admissions will be	m/p12	Flexibility and Efficiency of Use	Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then	-	Y	-	-	2	2	3	2	2.25

	open.				select "How to Apply")								
46	Redundancy of Information QEC	"QEC" Heading is placed on more than 1 pages/places.	I/14.png	Aesthetic and Minimalist Design	On various pages	-	-	Y	Y	2	2	2	3	2.25
47	Less media links	only Facebook and twitter links are given	S/p9	Consistency and standards – Flexibility	On each page	-	-	-	Y	1	2	3	3	2.25
48	Time Line is in reversed order	Time line should be listed in such an order that current VC or any official must be displayed at top. Order is reversed.	a/p4	Speak the Users' Language	Go to about page then in side bar on "About AU" page click on Time line.	Y	-	-	-	3	2	2	1	2
49	Duplicacy of Contact Page	There is a separate section of contact us page in menu bar. Why it is again sub section of about us page.	a/p7	Aesthetic and Minimalist Design	Go to about page then in side bar on About AU page.	Y	Y	Y	Y	2	2	2	2	2
50	Erroneous/ Incorrect Title	Actual page is minutes of meetings with the wrong title Training/Activites/Workshops.	a/p13	Speak the Users' Language	Go to home page, in menu bar click on QEC section then in side bar click on Minutes of meeting. Link : https://au.edu.pk/Pages/QEC/meetings_and_minutes.aspx	Y	-	-	-	2	2	2	2	2
51	Duplicacy of Social Links	On Every page there is duplicacy of facebook and twitter links.	a/p18	Aesthetic and Minimalist Design	Go to Home page - see Header and footer. Link :https://au.edu.pk/Default.aspx	Y	Y	Y	Y	1	2	3	2	2
52	No Knowledge in the world	In Jobs portal, when you click on "Jobs" from the	a/p26	Recognition Rather Than	https://portals.au.edu.pk/jobs/	Y	-	-	-	2	2	2	2	2

#	Title	Description		Heuristic	Location									
	- What to Type in Job SearchBox?	navigation bar or click on "Search Jobs" from the side bar, Its shows sections in the center related to recent jobs and here user gets a search bar to search. But what to type in search box? No proper place holder is present.		Recall	forms/ In Jobs portal, i.e. from main AU website click on "Employment" section in the top nav bar. Then You will land on Jobs portal. From here you can either click on "Jobs" or "Search Jobs".									
53	No Option for Signup (New User) In Main Navbar	There should be a signup option in the main navbar so that one can see it on home page and register his/herself. For Signup user must have to open "Candidate Login" and from that select "Signup". Or when he/she apply for a job then he/she is redirected to Signup.	a/p28	Flexibility and Efficiency of Use	https:// portals.au.edu.pk/Jobs/ candidate/ Signin.aspx	Y	-	-	-	2	3	2	1	2
54	Confusing - Three Different sections for News/Notific ation/Events	Simpler design can be made for this. There are three to fours places on Home page for News notification etc. Make it a bit organized. I feel its a bit confusing. Divide it in 2 sections like , 1) NEWS and Events and 2) Notifications and latest important news should float at top.	a/p39	Aesthetic and Minimalist Design	On Home page - see News sections	Y	-	-	-	2	2	2	2	2

55	About Page – Inconsistency in the page name	In the main navigation links bar, the word "About" is used for the about page and in the local navigation area, the phrase "About AU" is used for the same thing.	m/p5	Consistency		-	Y	-	-	2	2	2	2	2
56	Incomplete information in "Fee & Financial Aid" Section	Only the fee structure is available and No information is given about Financial Aid.	m/p11	Flexibility and Efficiency of Use – Speak the User's Language	Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then select "Fee & Financial Aid")	-	Y	-	-	2	3	1	2	2
57	Faculties – Hidden Links	"Staff" is not clickable. Two hidden links pops up when we hover over it. The should have been a menu bar sign on staff.	m/p16	Consistency	Home page (Start -> click on the "Faculties" in the main navigation bar, select "Department of Aerospace Sciences and Strategic Studies", then find "Staff" in the local navigation bar present on the left side.)	-	Y	-	-	2	2	2	2	2

#	Title	Description	Ref	Heuristic	Location									
58	Faculties – No easily visible option to go back	"Faculty of Computing & Artificial Intelligence" leads us to a page from where it is hard to get back to the main page of the website.	m/p20	Reversible Actions	Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty of Computing & Artificial Intelligence".)	-	Y	-	-	2	2	2	2	2
59	Loading Time	Pages are not loaded in a reasonable amount of time	I/1.png	Aesthetic and Minimalist Design		-	-	Y	-	1	3	3	1	2
60	Useless Heading	The heading "Events" is of no use	I/5.png	Error Prevention	Pages/ Faculties/ Computing_AI/ Cyber_Security/ dept_cyber_home	-	-	Y	-	2	2	2	2	2
61	CPD page has different layout	CPD page which has different layout from whole website	S/p7	Consistency	cpd/ Introduction.aspx	-	-	-	Y	2	2	2	2	2
62	Library in Labs	Library option is present in side bar of research lab page this is irrelevant	S/p13	Aesthetic and Minimalist Design	On Home page	-	-	-	Y	1	2	2	3	2

63	Duplicacy of Scholarship section	Duplicacy is the main problem with this site. Scholarship section is present in admissions secction. Then why there is a sperate entry of scholarship in main menu bar?	a/p5	Aesthetic and Minimalist Design	See main menu bar in home page. Also open admissions section and see side bar.	Y	-	-	-	2	2	1	2	1.75
64	Erroneous Slider in Placement Portal	Buttons for changing the images is present but there is only one image, so need of these buttons.	a/p21	Speak the Users' Language	https://portals.au.edu.pk/placement/	Y	-	-	-	2	2	1	2	1.75
65	No Placeholders or Information to fill forms	In Jobs portal and in whole website there is no knowledge placed in world i.e. no placeholders of helping examples to fill login or sign up forms. No format defined for entering names etc.	a/p34	Recognition Rather Than Recall	In Employment - see candidate login and sign up - also see employee login. And this problem is with whole website.	Y	-	-	-	2	2	2	1	1.75

66	Admission Page- redundant section named "Late Admission"	In this section, just the policy of the University about late admissions is mentioned in two lines which is not needed. The process of admission starts with online applications and the late admission is not possible because you can't apply once the applications are closed.	m/p13	Aesthetic and Minimalist Design	Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then select "Late Admission")	-	Y	-	-	1	2	2	2	1.75
67	Heading "Employment" is misleading	title " Jobs" is better than "Employment" and it displays the exact purpose which is widely used.	I/8.png	Speak the Users' Language	Pages/ Employment	-	-	Y	-	1	2	3	1	1.75
68	No Reverse Chronological Order	Research publications are in chronological order, it should be in reverse Chronolical order.	a/p14	Speak the Users' Language – Consistency	Go to ORIC in main menu bar and then select from the side-bar "Research Publications" Link : https://au.edu.pk/Pages/ORIC/Oric_Doc/Publications.pdf	Y	-	-	-	2	2	1	1	1.5

69	Wrong/ incorrect Icon to represent fax	In the Library Section, when you click on "Services Hours And Contact Info", you get services and contact details. But wrong icon is used for fax number.	a/p33	Consistency	https://www.au.edu.pk/Pages/Library/library_service_hours.aspx	Y	-	-	-	1	2	2	1	1.5
70	Inconsistent naming "DASSS"	Abbreviation are not standardized.	I/2.png	Consistency	Pages/ Faculties/ Aerospace Sciences & strategic studies	-	-	Y	-	1	2	2	1	1.5
71	Not Updated site	Air Online Gallery is not updated.	I/17.png	Aesthetic and Minimalist Design	Pages/ORIC/ Gallery	-	-	Y	-	1	1	2	1	1.25

Legend: Name Codes.

Code	Meaning
Q	Qazi Arslan Shah
M	Muhammad Musawar Baig
I	Imran Khan
y	Found by this evaluator

Legend: Severity Ratings.

Severity	Meaning
4	Catastrophic problem
3	Serious problem
2	Minor problem
1	Cosmetic problem

Appendix A: Heuristics Used by the Evaluators:
A description of the Ten heuristics which was used can be found under Appendix A.

Appendix B: Individual Evaluation Logs:
Raw skeleton log files for all the four evaluators can be found under Appendix B.

Appendix C: Spreadsheet:
The filled-in detailed spreadsheet of all problems including their respective severity ratings can be found Appendix C.

Appendix A: Heuristics

A01 Feedback

The system should give appropriate feedback within an appropriate time.

For example, for a delay of upto about 10 seconds display a busy cursor, for a delay of more than 10 seconds display a progress bar.

A02 Speak the Users' Language

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms.

Follow real-world conventions. Make information appear in a natural and logical order. Match the users' mental model.

Beware of misleading metaphors.

A03 Reversible Actions

The user should be free to explore the system without penalty.

Users sometimes choose functions by mistake and need a clear way to back up. Support undo and redo.

A04 Consistency

The same word, phrase, action, or situation should always mean the same thing.

Follow platform conventions and standards. If there is a standard way of doing something, do it that way unless there is a

a very good reason to do it differently.

A05 Error Prevention

Prevention is better than cure. Careful design can prevent a problem from occurring in the first place.

For example: selecting a file from a menu rather than typing in a file name, asking for confirmation before dangerous

actions, avoiding modes (or making it extremely clear which mode the user is in), avoiding commands with similar names.

A06 Recognition Rather Than Recall

Place knowledge in the world. Make objects, actions, and options visible.

For example, provide examples, default values, and easily retrievable instructions. The user should not have to remember

information from one part of the dialogue to another.

A07 Flexibility and Efficiency of Use

Provide accelerators for frequent users, unseen by novice users. Allow users to tailor frequent actions.

For example: abbreviations, command keys, type-ahead, the ability to edit and reissue previous commands, a menu of

most recently used files, macros.

A08 Aesthetic and Minimalist Design

"Less is more".

Dialogues should not contain information which is irrelevant or rarely needed. Every piece of

unnecessary decoration in a

dialogue competes with the relevant units of information for the attention of the user.

A09 Good Error Messages

A good error message helps users recognize, diagnose, and recover from errors.

Good error messages should be: in plain language (no codes), precise (precisely indicate the problem), defensive (never

blame the user), constructive (suggest a solution), and multi-level (include a link to further information or the help system).

A10 Help and Documentation

Even though it is better if the system can be used without documentation, it may be necessary to provide help and docu-

mentation.

Good help and documentation should be: easy to navigate (table of contents, index, and search facility), task-oriented

(focused on the user's tasks), recipe-like (list sequences of concrete steps), and example rich (make liberal use of examples).

Appendix B: Individual Evaluation Logs

The logs of all the four evaluators all given below:

Qazi's log

```
Evaluator: Qazi Arsalan Shah
Age: 20
Sex: Male
Web Browser and Version: Firefox for Ubuntu Canonical -1.0
Operating System and Version: Ubuntu 18.04
Internet Connection Type: PTCL DSL Wireless
Internet Connection Download Speed: 6 MBPS
Monitor Size: 14" Led
Monitor Colours: 32-bits
Monitor Resolution: 1,366 x 768pixels
Browser Resolution: 1,366 x 768pixels
Date of Evaluation: 30 January 2020
Time of Evaluation: 10:00 am - 1:00 pm




================================================================================
=========

Positive Impressions
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o Detailed Website with all relevant content present

  There is good amount of content in overall website. One can easily navigate to LMS , placement
center, employment and student portals etc.


Screenshot:  main_home_page

================================================================
o Good Loading Time of Website

  There is no such issue of loading time in whole website. Main home page opens in a very
reasonable time.


Screenshot:  main_home_page

==================================================================
o Overall Behaviour

  It is not that difficult to find all the relevent information. A very clear menu bar is present at the
top containing all relevent links.
```

Screenshot: main_home_page

===

o Unique Thing from other University Websites / See AU's Facebook feed from Home page

  At the bottom of home page, there is a sub-section for facebook feeds, one can easily scroll in that section and see relevent news and updates staying on the main website of AU.

Screenshot: main_home_page

===

Problems
----

o Click on "View all news stories leads to crashed page".

  Looks like a backend server error. There should be a proper error message so that novice user may not get confused.

  Heuristic: BUG - Good Error Messages

  Location Go to home page, in News and Events section , click on "View All News   Stories".
  Link - https://au.edu.pk/Pages/NewsEvents/AllNewsEvents.aspx

  Screenshot: "p1_news.png" and "p1_news.png"

===
===

o No Information about Departments

  Description
  There is no visible information or link that shows all the departments in the university.

  Heuristic: Consistency

  Location - Go to home page.

  Screenshot: Main home page

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o No Highlighted (Active) Links

  In About section there is side-bar for all the sub links in about. But when you click on any of them

it opens correctly but none on them in the side bar is shown active (Highlighted). There should a highlighted link so that one knows on which tab he/she is.

Heuristic: Consistency or BUG

Location - Go to about page then see side bar on about us page and click on any of them.

Screenshot: about_

==

o Time Line is in reversed order

Time line should be listed in such an order that current VC or any official must be displayed at top. Order is reversed.

Heuristic: Speak the Users' Language

Location - Go to about page then in side bar on about us page click on Time line.

Screenshot: about_

==

o Duplicacy of Scholarship section

Duplicacy is the main problem with this site. Scholarship section is present in admissions secction. Then why there is a sperate entry of scholarship in main menu bar?

Heuristic: Aesthetic and Minimalist Design

Location - See main menu bar in home page. Also open admissions section and see side bar.

Screenshot: scholarship_dup1.png and scholarship_dup2.png

==

o Little Time Delay without feedback

When you load Maps in about us page section, it takes approximately 1.5 to 3 seconds. Pages loads quickly but maps takes time. SO there must be a busy cursor.

Heuristic: Feedback

Location - Go to about page then in side bar on about us page click on Maps.

Screenshot: maps_delay

```
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```

o Duplicacy of Contact Page

There is a sperate section of contact us page in menu bar. Why it is again sub section of about us page.

Heuristic: Aesthetic and Minimalist Design

Location - Go to about page then in side bar on About AU page.

Screenshot: about_sidebar

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================================================================
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```

o What to type in search bar.

There is no proper placeholder or example for new users, what sould they type in search.

Heuristic: Recognition Rather Than Recall

Location - Go to Contact us page and see search bar.
https://au.edu.pk/Pages/About/Contact_Us.aspx

Screenshot: Contact_us

```
================================================================
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```

o Duplicacy of About_AU Side bar

When you click contact us page from navigation bar, here opens contact us page. But its side bar is similar as about us page side bar.

Heuristic: Aesthetic and Minimalist Design

Location - Go to Contact us then see the side bar (Article section).

Screenshot: Contact_us

```
================================================================
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```

o No Highlighted (Active) Links

In Admissions section there is side-bar for all the sub links. But when you click on any of them it opens correctly but none on them in the side bar is shown active (Highlighted). Same problem was with about us page

Heuristic: Consistency or BUG

Location - Go to Admissions link in main menu bar then see side bar and click on any of them.

Screenshot: admissions

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o No Highlighted (Active) Links (whole website)

This is a commom bug or issue in all pages of AU website.

Heuristic: Consistency or BUG

Location - Go to Any of the links in Navigation bar (main menu) and see side bars.

Screenshot: all nav bar

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o Un available page.

Looks like page has been removed and still its interface(button) is present.

Heuristic: BUG - Good Error Message

Location Go to home page, in menu bar in research section click on research lab, it will open a page sub page in it. then from he side bar click on RESEARCH.

Link - https://au.edu.pk/Pages/Research/index.html

Screenshot: "snaps/ Research"

===
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o Erroneous/Incorrect Title.

Actual page is minutes of meetings with the wrong title Training/Activites/Workshops.

Heuristic: Speak the Users' Language or Error

Location Go to home page, in menu bar click on QEC section then in side bar click on Minutes of meeting.
https://au.edu.pk/Pages/QEC/meetings_and_minutes.aspx
Screenshot: "snaps/ QEC_MOM"

===
===

o No Reverse Chronological Order

  Research publications are in chronological order, it should be in reverse Chronolical order.

  Heuristic: Speak the Users' Language

  Location - Go to ORIC in main menu bar and then select from the side-bar "Research Publications".

  Screenshot: ORIC-ResearchPubs

===

o Obsolete Links/Info in ORIC Research-Funding Opportunities

  There are two sub parts in ORIC-Funding Opportunities 1) "National Funding Opportunities" and 2) "International Funding Opportunities",
Here only part one is concerned. All provided links in this sections are no more available.

  Heuristic: Aesthetic and Minimalist Design

  Location - Go to ORIC in main menu bar and then select from the side-bar "Research Funding opportunities then in it click on "National Funding Opportunities" and see any of the given links in it.

  Screenshot: oric-rfo-nfo.png and oric-rfo-nfo-p1.png

===

o Obsolete/Old Info in ORIC-IFO

  In ORIC-Research Funding Opportunities there is a section "International Funding Opportunities", In this section many given links are leads to page not found i.e. deleted info and on some links page crashes. And few links are working.

  Heuristic: Aesthetic and Minimalist Design

  Location - Go to ORIC in main menu bar and then select from the side-bar "Research Funding opportunities then in it click on "International Funding Opportunities" and see all the given links in it.

  Screenshot: oric-rfo-ifo.png and oric-rfo-ifoLink1.png

===

o (Expired) Registeration Form for Internship(2019) still active

  In Placement Portal, there is a link available for registeration for summer internship 2019. (Now it

is 2021).

Heuristic: Aesthetic and Minimalist Design

Location - Go to "Placement" portal an the top of main home page (Top Nav bar). Then from the article section (Sidebar) see Registeration Form for 2019 Summer Internship.

Screenshot: placement-regintern

==

o Duplicacy of Social Links

On Every page there is duplicacy of facebook and twitter links.

Heuristic: Aesthetic and Minimalist Design

Location - Go to Home page - see Header and footer.
Link :https://au.edu.pk/Default.aspx

Screenshot: Home page

==

o Redundant information on Home Page

There is lot of extra duplicate information on Home page. Like Important link section, it is also available at the top nav bar. VC Message is in about us section.

Heuristic: Aesthetic and Minimalist Design

Location - Go to Home page. And see the page.
Link :https://au.edu.pk/Default.aspx

Screenshot: Home Page

==

o Inconsistant Design of portals (Placement and Employment)

Complete layout of portals is different from AU main website's layout.

Heuristic: Consistency

Location - https://portals.au.edu.pk/placement/
          https://portals.au.edu.pk/jobs/

Screenshot: placement and Job

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o Erroneous Slider in Placement Portal

  Buttons for changing the images is present but there is only one image, so need of these buttons.

  Heuristic: Speak the Users' Language

  Location - https://portals.au.edu.pk/placement/

  Screenshot: placement_slider

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o Bad Design,Colors and Fonts in Placement-Subsection

  Font is bit small, so it is effecting overall readability. Design is also not good. Extra space on both sides is available. Side bar is very small it can be made much better. Rather Placing a long list on that page, It should be designed in sub setions to make is more interactive and clean in terms of visibilty.

  Heuristic: Consistency

  Location - https://portals.au.edu.pk/placement/alumni_directory.aspx

  Screenshot: placement-alumi-directory.png

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o Backend(Server) Error Not Handled

  Errors do occur, but it should be properly handled. It may confuse the new novice users. See the screen shot to see the error.

  Heuristic: Good Error Messages

  Location - In Placement portal, Click on graduate directory or student directory. Then click any of the links on that page.

  Screenshot: graduate_dir_error.png and placement_graduate_error.png

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o No Navigation bar in placement Portal

  There must be atleast a proper button for users to navigate back to the AU Home page.

  Heuristic: Speak the Users' Language

  Location - https://portals.au.edu.pk/placement/

  Screenshot: placement_main.png

==

o Different Options doing same thing

  In Jobs portal, there is a side bar from we can select different options. And as their name suggest, they are meant to do different work. But few of them do same thing as others do. Like Click on "Home" and "About AU Web Portal" lands you on the same home page of jobs portal i.e. doing nothing.

  Heuristic: Speak the Users' Language or Consistency

  Location - https://portals.au.edu.pk/jobs/   (Home Page)
          https://portals.au.edu.pk/jobs/Default.aspx (Same Home Page)
          https://portals.au.edu.pk/jobs/Default.aspx# (Same Home Page)

  Screenshot: jobs_portal_inc.png

==

o No Knowledge in the world - What to Type in SearchBox?

  In Jobs portal, when you click on "Jobs" from the navigation bar or click on "Search Jobs" from the side bar, Its shows sections in the center related to recent jobs and here user gets a search bar to search. But what to type in search box? No proper place holder is present.

  Heuristic: Speak the Users' Language

  Location - https://portals.au.edu.pk/jobs/forms/
          In Jobs portal, i.e. from main AU website click on "Employment" section in the top nav bar. Then You will land on Jobs portal. From here you can either click on "Jobs" or "Search Jobs".

  Screenshot: jobs_serach.png

==

o Irrelevant Option in signup- Forgot password.

  There is no need to add "Forgot Password" option in the signup. It may confuse new novice

users. And try to make interface a bit good.

   Heuristic: Speak the Users' Language

   Location - https://portals.au.edu.pk/Jobs/candidate/signup.aspx

   Screenshot: jobs_signup.png

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o No Option for Signup (New User) In Main Navbar

   There should be a signup option in the main navbar so that one can see it on home page and
register his/herself. For Signup user must have to open "Candidate Login" and from that select
"Signup". Or when he/she apply for a job then he/she is redirected to Signup.

   Heuristic: Consistency

   Location - https://portals.au.edu.pk/Jobs/candidate/Signin.aspx

   Screenshot: jobs_signup_nooption.png

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o Un available page (AU Information System).

   Looks like page has been removed and still its interface(button) is present.

   Heuristic: BUG - Consistency

   Location Go to home page, in top navigation bar click on either "Downloads" or "Advertisements"
or "Tenders", then In the side bar click on "AU Information System".

   Link - https://www.au.edu.pk/Pages/AUInfo/index.html

   Screenshot: "downloads_AUINFO1.png" and "downloads_AUINFO.png"

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o Redundant Design

   In Top Navigation bar there are sperate links for "Downloads", "Advertisements" and "Tenders".
When someone opens them it open a commoon page, from which we can select these three
options as well. If this is the case then there is no need of separate links in top nav bar. There
should be one common link for all.

   Heuristic: Asthetic and Minimilistic Design

   Location Go to home page, in top navigation bar click on either "Downloads" or "Advertisements"
or "Tenders".

Link - https://www.au.edu.pk/Pages/AUInfo/downloads.aspx#

Screenshot: "redundant_design_AUINFOSYS.png"

==

o Crashed Page - Library Catalog

When you click on "Library Catalog" in Library section (FromTop Nav bar of Home Page, click on Library), It opens a new tab at => (111.68.96.103:8082//) but we can't connect to the server. If it is the error due to some proxy settings, there must be a proper error message.

Heuristic: Good Error Messages

Location Go to home page, in top navigation bar click on "Library", then In the side bar click on "Library Catalog".

Link - 111.68.96.103:8082//

Screenshot: "library_catalog.png" and "library_catalogerror.png"

==

o Crashed Page - AU Repository

When you click on "AU Repository" in Library section (FromTop Nav bar of Home Page, click on Library), It opens a new tab at => (http://111.68.96.103:8080/jspui) but we can't connect to the server. If it is the error due to some proxy settings, there must be a proper error message.

Heuristic: Good Error Messages

Location Go to home page, in top navigation bar click on "Library", then In the side bar click on "AU Repository".

Link - http://111.68.96.103:8080/jspui

Screenshot: "library_AU_REPO1.png"

==

o Wrong/incorrect Icon to represent fax

In the Library Section, when you click on "Services Hours And Contact Info", you get services and contact details. But wrong icon is used for fax number.

Heuristic: Consistency

Location : https://www.au.edu.pk/Pages/Library/library_service_hours.aspx

Screenshot: "Library_FAXserviceHours.png"

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o No Placeholders or Information to fill forms

In Jobs portal and in whole website there is no knowledge placed in world i.e. no placeholders of helping examples to fill login or sign up forms. No format defined for entering names etc.

Heuristic: Recognition Rather Than Recall

Location : In Employment - see candidate login and sign up - also see employee login. And this problem is with whole website.

Screenshot: "noKNOW_inWorld.png"

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o Duplicacy of FMC

There is a redundancy, separete link to FMC is placed in Top Navigation bar and it is also present in "Institutes" (In Top NavBar) drop down.

Heuristic: Aesthetic and Minimalist Design

Location - See Top Navigation bar on Home page.

Screenshot: Home Page

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o Obsolete or Blocked Website links

In the Top Navigation bar, from "Institutes" Dropdown select "Affiliated Institutes", then from side bar click on "Introduction", Here all Affliated Institutes are present with brief detail and their websites. But These links are erroneous or outdated.

Heuristic: Aesthetic and Minimalist Design

Location - See Top Navigation bar on Home page - From "Institutes" Dropdown select "Affiliated Institutes", then from side bar click on "Introduction", Here all Affliated Institutes.

Example Link : https://www.au.edu.pk/Pages/AffilatedInstitutes/www.fcoe.edu.pk

Screenshot: affiliated_Invalid.png

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o Duplicacy of Maps on Home Page

  Maps for AU Location is present in "About" section. On Home page there they also added maps. It should be only at one place, content looks good if it is well organized. KISS -> KEEP IT SIMPLE STUPID.

  Heuristic: Aesthetic and Minimalist Design

  Location - Bottom Home Page (Footer) and See About (https://www.au.edu.pk/Pages/About/map_au.aspx)

  Screenshot: Home_page Maps

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o Over-Chrowded Home Page (Redundancy)

  Simple is always better. Well organized Content always look good. Home page is over crowded. There are repetative links and sections. VC Message is present in About section and also present on Home page. There is section of "Important Links" on home page but it is redundant. These are also present in Top Navigation Bar.

  Heuristic: Aesthetic and Minimalist Design

  Location - See Home Page - in Detail

  Screenshot: Home_page

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o Confusing - Three Different sections for News/Notification/Events

  Simpler design can be made for this. There are three to fours places on Home page for News notification etc. Make it a bit organized. I feel its a bit confusing. Divide it in 2 sections like , 1) NEWS and Events and 2) Notifications and latest important news should float at top.

  Heuristic: Aesthetic and Minimalist Design

  Location - On Home page - see News sections

  Screenshot: redundant_news.png

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o No Contact Form (Send us message)

 In Contact us page, there should be a contact us form. SO that users can easily type their message and send to AU.

 Heuristic: Speak the Users' Language

 Location - Contact Us from main menu bar

 Screenshot: exampleNamalContact.png

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o Home Page General Layout

 I think overall layout of home page design can be a bit moer better. It dont feel that much comfortable at first glance.
Rather to divide in two vertical sections, it should be horizontal and center align.

 Heuristic: Asthetic and minimilistic design.

 Location - Home Page

 Screenshot: Home Page

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Musawar's log

Evaluator: Muhammad Musawar Baig
Age: 21
Sex: male
Web Browser and Version: Firefox-83.0
Operating System and Version: Ubuntu 20.04.1 LTS
Internet Connection Type: wireless
Internet Connection: 2 mbps, Zong 4G Bolt+, wireless
Download Speed: 2 mbps
Laptop Screen Size: 15.60"
Screen Colours: 32-Bit
Screen Resolution: 1366x768
Browser Resolution: 1366x768
Date of Evaluation: 30 January 2020
Time of Evaluation: 10:00 am - 1:00 pm

Positive Impressions:

The positive impressions are listed below:

>>-o Loading Time:
 Majority the pages load in resonable loading time.

>>-o Comprehensive nature:
 All the significant information about the University is present on the website in detail.

Problems:

>>-o Home Page – Duplication of the same content:
The links of Facebook and Twitter page are given in the top right as well as bottom right corner.
The links related to ADMISSION, RESEARCH, ABOUT AU and QEC are also not needed in the
bottom right side as they are already present in the main navigation bar.
Heuristic: A08 Aesthetic and Minimalist Design
Screenshot: musawar_p1_10-40-45.png, musawar_p1_10-43-10.png

>>-o Home Page – Quality of the picture:
The picture of the Air university is of low resolution which is giving an odd look to the home page.
Heuristic: A08 Aesthetic and Minimalist Design
Screenshot: musawar_p2_10-43-10.png

>>-o Home Page – Redundant Content ("Click Here"):
The phrase "Click Here" is redundant under the News and Events area because links should be
self-explanatory.
Heuristic: A08 Aesthetic and Minimalist Design
Screenshot: musawar_p1_10-43-10

>>-o Home Page – Poor Error Message:
When the user clicks any of the three links under the RESEARCH heading at the bottom right
corner of the screen, the user gets this error "Service Unavailable Error 503". It will be hard for a
novice user to understand the meaning of this error message.
Heuristic: Good Error Messages
Screenshot: musawar_p1_10-43-10.png
Location: Home page (Start -> click any of three links under the heading RESEARCH at the
bottom right side of the home page)

>>-o About Page – Inconsistency in the page name:
In the main navigation links bar, the word "About" is used for the about page and in the local
navigation area, the phrase "About AU" is used for the same thing.
Heuristic: A04 Consistency
Screenshot: musawar_a1_11-53-13.png

>>-o Hard to Navigate:
The AU is hard to navigate because you can easily lose your way in the website. The names or
links of the various pages (like Home, About, Admission…, Graduate Studies and Contact Us) in
the website that you are currently visiting is not highlighted in the main navigation bar as well as
the local navigation area. This problem occurs all across the website which makes it hard to user
because user must remember the page that He or She is visiting.

Heuristic: A06 Recognition Rather Than Recall
Screenshot: musawar_a2_12-27-00.png

>>-o About Page-Un Userfriendly Search Area:
The search area is not appropriate because there is no place holder text to guide the user to for searching. The user may get confuse on what basis he has to search because there is no placeholder text in the search box to guide the user.
Heuristic: A06 Recognition Rather Than Recall
Screenshot: musawar_a3_12-59-46.png

>>-o Home Page-General design of the website is not user friendly:
The general design of the website is not user friendly and looks a bit outdated. There is a need for a section about "FAQs" as well frequently used links
Heuristic: A07 Flexibility and Efficiency of Use
Screenshot: musawar_p1_10-40-45.png

>>-o No search area to search the whole website:
There is no search area to search the whole website which makes it hard to find the stuff that one is looking for.
Heuristic: A07 Flexibility and Efficiency of Use
Screenshot: musawar_p1_10-40-45.png

1>>-o Admission Page-incomplete Admission Schedule:
No information is given about BS admissions.
Heuristic: A07 Flexibility and Efficiency of Use
Screenshot: musawar_adm1_13-40-32.png
Location: Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then select "Admission Schedule")

>>-o Admission Page-incomplete information in section named "Fee & Financial Aid":
Only the fee structure is available and No information is given about Financial Aid.
Heuristic: A07 Flexibility and Efficiency of Use
Screenshot: musawar_adm2_13-53-59.png
Location: Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then select "Fee & Financial Aid"")

>>-o Admission Page-lack of information in section named "How to Apply":
In this section, it is mentioned that the admissions are closed but no information about when the upcoming admissions will be open.
Heuristic: A07 Flexibility and Efficiency of Use
Screenshot: musawar_a4_14-03-04.png
Location: Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then select "How to Apply")

>>-o Admission Page-redundant section named "Late Admission":
In this section, just the policy of the University about late admissions is mentioned in two lines which is not needed. The process of admission starts with online applications and the late admission is not possible because you can't apply once the applications are closed.
Heuristic: A08 Aesthetic and Minimalist Design
Screenshot: musawar_a5_14-20-42.png

Location: Home page (Start -> click on the drop-down menu of "Admission" in the main navigation bar and then select "Late Admission")

>>-o Scholarship Page-redundant navigation area:
On the scholarship page, the information about various kinds of scholarships is available but local navigation area is related to the admission page which doesn't make sense on this page as it is already the part of page named "Admission". The local navigation area of scholarship page should be related to scholarships.
Heuristic: A08 Aesthetic and Minimalist Design
Screenshot: musawar_scholarship_14-41-30.png
Location: Home page (Start -> click on the "Scholarship" in the main navigation bar.)

>>-o Separate "Contact Us" is redundant:
The separate Contact Us page in the main navigation bar is redundant because the link to the Contact Us page is already given in local navigation bar of "About" page.
Heuristic: A08 Aesthetic and Minimalist Design
Screenshot: musawar_Contact_US_15-27-13.png
Location: Home page (Start -> click on the "Contact Us" in the main navigation bar.)

>>-o Faculties – Hidden Links:
"Staff" is not clickable. Two hidden links pops up when we hover over it. The should have been a menu bar sign on staff.
Heuristic: A04 Consistency
Screenshot: musawar_f1_15-09-56.png, musawar_f2_15-10-01.png
Location: Home page (Start -> click on the "Faculties" in the main navigation bar, select "Department of Aerospace Sciences and Strategic Studies", then find "Staff" in the local navigation bar present on the left side.)

>>-o Faculties – DASS's Unavailable Page:
"DASS" leads us to an unavailable page.
Heuristic: A09 Good Error Messages
Screenshot: musawar_f3_17-37-28.png
Location: Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty Aerospace Sciences and Strategic Studies", then click on "DASS" in the local navigation bar present on the left side.)

>>-o Faculties – Avionics and Aeronautics (IAA)'s Unavailable Page:
"Faculty Of IAA" leads us to an unavailable page.
Heuristic: A09 Good Error Messages
Screenshot: musawar_f4_18-04-52.png
Location: Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty of Avionics and Aeronautics (IAA)", then click on "Faculty Of IAA" in the local navigation bar present on the left side.)

>>-o Faculties – Faculty Of Applied Sciences' Unavailable Page:
"Faculty Of Applied Sciences" leads us to an unavailable page.
Heuristic: A09 Good Error Messages
Screenshot: musawar_f5_18-07-41.png
Location: Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty Of Basic & Applied Sciences", then click on "Faculty Of Applied Sciences" in the local navigation bar present on the left side.)

>>-o Faculties – No visible to go back:
"Faculty of Computing & Artificial Intelligence" leads us to a page from where it is hard to get back to the main page of the website.
Heuristic: A03 Reversible Actions
Screenshot: musawar_f6_18-19-09.png
Location: Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty of Computing & Artificial Intelligence".)

>>-o Faculties – Inconsistent Structure:
"Air University School of Management" leads us to a page whose structure is completely different from the main website.
Heuristic: A04 Consistency
Screenshot: musawar_f6_18-19-09.png
Location: Home page (Start -> click on the "Faculties" in the main navigation bar, select "Air University School of Management".)

>>-o Faculties- Sub Standard Profile pictures
The profile pictures of a significant amount of faculty members are either substandard or missing all across the website.
Screenshot: musawar_f7_20-58-43
Heuristic: A08 Aesthetic and Minimalist Design
Location: Home page (Start -> click on the "Faculties" in the main navigation bar, select "Faculty of Avionics and Aeronautics (IAA)", then select "Department of Avionics Engineering" from the local navigation bar. And then select "Research and Teaching Faculty")

Note: We are just mentioning one department as a sample. This problem is similar across all the departments and with a significant amount of profile pictures present on the AU website.

Imran's Logs

Evaluator: IMRAN KHAN

Age: 21

Sex: male

Web Browser and Version: Google-Chrome

Operating System and Version: Windows 10 education pro

Internet Connection Type: chello
Internet Connection
Download Speed: 8 mbps
Monitor
Size: 13,3"
Monitor
Colour: 32-Bit
Monitor

Resolution: 1280 x 800

Browser Resolution: 1280 x 800

Date of Evaluation: 30 January 2020

Time of Evaluation: 10:30 am - 1:30 pm

1

Website contains excessive content

Website contains too much content.In fact, the website serves the purpose of prospective of university.

Heuristic: Aesthetic and Minimalist Design

Location: On each page

2

Loading Time

All Pages are not loaded in a reasonable amount of time(10 seconds).Excessive content/images on website might be the cause for this issue.

Heuristic: Aesthetic and Minimalist Design

Screenshot: 1.png

3 It is too hard to find the stuff you are looking for.

Due to unorganized structure of website novice user may not find the stuff he is looking for.

Location: On each page

Heuristic: Aesthetic and Minimalist Design

4 Inconsistent naming "DASSS"

Abbreviation are not standardized.

Location: Pages/Faculties/Aerospace Sciences & strategic studies

Heuristic: Consistency

Screenshot: 2.png

5 clicking on option does not do anything

Clicking on the option " About AU Web Portal" does not do any thing.

Location: Pages/jobs/Employees/EmpLogin

Heuristic: Error Prevention

Screenshot: 3.png

6 Inconsistent Sizes of images.

Images used on various pages are whether too small or too large which which leads to less interactivity of site.

Location: On each page

Heuristic: Aesthetic and Minimalist Design

Screenshot: 4.png

7
 Useless Heading

 The heading "Events" is of no use and is not even clickable.

 Location:Pages/Faculties/Computing_AI/Cyber_Security/dept_cyber_home

 Heuristic: Error Prevention

 Screenshot: 5.png

8
 Landing page is not Interactive

Landing page is meant for attracting user and its first impression on him but the website's landing page does not attract people.

Location: Pages/Home

Heuristic: Aesthetic and Minimalist Design

Screenshot: 6.png

9
 Student Portal Displays System Oriented Error.

Student Portal Displays System Oriented Error which novice user can not understand.

Location: Pages/Student_Portal

Heuristic: Good Error Messages

Screenshot: 7.jpg

10
  The Heading "Employment" is misleading.

As the title " Jobs" is better than "Employment" and it displays the exact purpose which is widely used.

Location: Pages/Employment

Heuristic: Speak the Users' Language

Screenshot:8.png

11
  Heading "Tenders" should be placed in Advertisement.

Location: Pages/Tenders

Heuristic: Aesthetic and Minimalist Design

Screenshot: 9.png
12
  Click on "Faculty of IAA" leads to an empty page.

Seems to be a clicking-bug.

Location: Pages/Faculties/IAA

Heuristic: Error Prevention

Screenshot:10.png
13
  clicking on option does not do anything

  Clicking on the option " About AU Web Portal" does not do any thing.

  Location: Pages/jobs/Employees/EmpLogin

  Heuristic: Error Prevention

  Screenshot: 10.png

14
  Click on "Faculty of IAA" leads to an empty page.

Seems to be a clicking-bug.

Location: Pages/Faculties/IAA

Heuristic: Error Prevention

Screenshot:10.png

15
        Redundancy of Information

Social media page's links "Twitter" and "Facebook" are used on every page .
Locations: On each page

Heuristic: Aesthetic and Minimalist Design

Screenshot: 13.png

16
        Redundancy of Information

Map is placed on more than 1 pages.

Locations: On various pages

Heuristic: Aesthetic and Minimalist Design

Screenshot: 14.png

17
        Redundancy of Information

"About AU" is placed on various pages.

Locations: On various pages

Heuristic: Aesthetic and Minimalist Design

Screenshot: 15.png

18
        Redundancy of Information

"QEC" Heading is placed on more than 1 pages/places.

Locations: On various pages

Heuristic: Aesthetic and Minimalist Design

Screenshot: 16.png

19

Unnecessary use of information

The block for "Facebook updates" is necessary.

Locations: On Home page

Heuristic: Aesthetic and Minimalist Design

Screenshot: 17.png

20
Redundancy of Information/Unnecessary Use of information

Block"Contact Us" is placed on many pages.

Locations: On each page

Heuristic: Aesthetic and Minimalist Design

Screenshot: 18.png

21
Search facility is not easy to use.

There is no placeholder in search bar,also there is no documentation about the working of search.

Locations:Pages/About/Contact_Us

Heuristic: Recognition Rather Than Recall

Screenshot: 19.png

22   Not Updated site

 Air Online Gallery is not updated.

Locations:Pages/ORIC/Gallery

Heuristic:Aesthetic and Minimalist Design

Screenshot: 20.png
23
No remember credential option.
 Student portal does not remember credential option which is usually present to save the time of user.

Locations:Pages/Student_portal

Heuristic:Speak the user's language

Screenshot: 20.png

Shahrukh's log

Evaluator: Shah Rukh khan
Age: 21
Sex: Male
Web Browser and Version: Laest version of Chrome
Operating System and Version: Microsoft Windows 10
Internet Connection Type: Jazz
Internet Connection Download Speed: 1 MBPS
Monitor Size: 14" LED
Monitor Colours: 32-Bits
Monitor Resolution: 1336 x 768
Browser Resolution: 1336 x 768
Date of Evaluation: 30 January 2020
Time of Evaluation: 10:00 am - 1:00 pm

Problems:

1: No News & Details

Description
        When user clicked the news and details link in downloads page then no further proceeding occurs means no news and details shown to user.
Heuristic: Consistency
Location - https://www.au.edu.pk/Pages/AUInfo/downloads.aspx
Screenshot: news & details.png

2: What ORIC and CRC means

Description
        When user opens Air university website then ORIC and CRC is present in Navigation bar. ORIC and CRC are difficult to understand for user.
Heuristic: Recognition rather than recall
Location - https://www.au.edu.pk/
Screenshot: ORIC.png

3: Redundancy of work

Description
        In the home page of Air university advertisement and tenders are doing same work so this is the problem in the home page. Many other works are repeated many times in the web which

makes not a good impression.
Heuristic: Consistency
Location - https://www.au.edu.pk/
Screenshot: adv_ten.jpg

4: Library Catalog page is down

Description
　　　When user clicks library catalog in library submenu then page error occurs means page is not accessed.
Heuristic: Speak the Users' Language
Location - https://au.edu.pk/Pages/Library/about_Library.aspx
Screenshot: catalog.png

5: Slow response from CPEC update

Description
　　　In research when user clicks center of excellence for CPEC in research. After this if user clicks the news updates from side bar then response time is very high.
Heuristic: Visibility of System Status
Location - https://au.edu.pk/Pages/CPEC/cpec_about_us.aspx
Screenshot:

6: Website content is muddled

Description
　　　In the home page of Air university website body or content is very harsh difficult to understand. QEC, research, admission, Facebook updates and Quick links are making no sense I think and confusing the user specially the new user. Design is also not up to date.
Heuristic: Aesthetic and Minimalist Design
Location - https://www.au.edu.pk/Default.aspx
Screenshot: website content.png

7: CPD page has different layout

Description
　　　In the home page of Air university website when user clicks CPD (Center for Professional Development)
then user reach CPD page which has different layout from whole website.
Heuristic: Aesthetic and Minimalist Design
Location - https://portals.au.edu.pk/cpd/Introduction.aspx
Screenshot: CPD.png

8: View stories cause server down

Description
　　　In the home page of Air university website when user clicks view all stories below the slider then server goes down.
Heuristic: Error message
Location - https://portals.au.edu.pk
Screenshot: server_d.png

9: Less media links

Description
In the website less media links are given only Facebook and twitter links are given but many other sources which universities use in today era.
Heuristic: Consistency and standards
Location - https://www.au.edu.pk/Default.aspx
Screenshot: header.png

10: Don't know What to search

Description
In the website when user clicks the Contact US then search bar will be shown to the user but there are no instruction for user to search on what basis which may led to error and wastage of time.
Heuristic: Error Prevention
Location - https://www.au.edu.pk/Pages/About/Contact_Us.aspx
Screenshot: search_bar.png

11: Slider is not controllable

Description
slider is not controllable.
Heuristic: Aesthetic and Minimalist Design
Location - https://www.au.edu.pk
Screenshot: slider.png and slider.mp4

12: Couldn't see research labs

Description
In the website when user clicks the Research Labs from Research in navigation bar. User should land on research lab page but user found himself on Computing at AU (Air University).
Heuristic: Consistency
Location - https://www.au.edu.pk
after click on research labs   https://www.au.edu.pk/Pages/Research/computing.aspx
Screenshot: research_bf.png after click on research labs research_af.png

13: Library in Labs ?

Description
In the website when user clicks the Research Labs from Research in navigation bar. But library option is also present in side bar of research lab page this is irrelevant because library option was present in navigation bar of main page so it makes no sense. Other thing is that when we are in page of research labs main navigation bar is present mean user can go to library from clicking library from navigation bar. So library again in the research lab is irrelevant.
Heuristic: Aesthetic and Minimalist Design
Location - https://www.au.edu.pk/Pages/Research/computing.aspx
Screenshot: lib_in_lab.png

14: Duplication of media links

Description
In the main page media links are present in header and footer which is an irrelevant thing

mean media links should be in footer and don't be repeated in interface.
Heuristic: Aesthetic and Minimalist Design
Location - https://www.au.edu.pk
Screenshot: header.png and footer.png

15: Student Affairs Department's introduction page is down

Description
In the main page if user clicks the Student Affairs Departmentin Quick links and after this if user click the introduction in left side bar then server goes down.
Heuristic: Error Message
Location - https://www.au.edu.pk/Pages/StudentAffairs/exam_introduction.aspx
Screenshot: student_affairs.png

16: Student Directory links are crashed

Description
In the main page if user clicks the Student directory from placement portal then all links in student directory are crashed means server goes down.
Heuristic: Error Message
Location - https://portals.au.edu.pk/placement/graduating_directory.aspx
Screenshot: student_affairs.png

17: QEC again

Description
In the main page QEC are present in header and above footer which is an irrelevant and confused the user so it should not be repeated in interface because interface will remain clean and attract the user.
Heuristic: Aesthetic and Minimalist Design
Location - https://www.au.edu.pk
Screenshot: header.png and QEC_below.png

18: Fazaia Medical College Islamabad page is Empty

Description
In the main page if user clicks the Constituent Units from Institutes and then user can't show the Website of Fazia Medical College because its website is empty
Heuristic:Visibility of System Status
Location - https://au.edu.pk/Pages/ConstituentUnit/constituent_units_info.aspx and then click
http://au.edu.pk/fmc/ in Fazaia Medical College, Islamabad
Screenshot: Faiza medical college.png and Faiza medical college2.png