



HCI PROJECT

For

AUST Project Documentation

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14.05.2019

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1.0 INTRODUCTION

In the area of technology, everything is sorted out in a easy way. Every hectic process are made into a easy one. The old day of running here and there for paper-works are gone. Especially university tasks has been carried out in a modern way that we can actually do every important works in university with websites. These websites contains various category of accessibility like admission, course curriculum, important notices etc. With these easy access people are saved of a lot of paper-works and be at ease.

For the lack of right amount of knowledge about how human & computer interface interact and not assigning the right people are failing the university websites. For lack of usability and aesthetics students get hard time using these websites and misses the chance of be facilitated by the facilities these website should provide.

So Ahsanullah is one of renowned private university in Bangladesh. It's official website should have provided the student of AUST many facilities. But it has failed to do that with a possibility of so many reasons. But mostly noticeable for it's lack of usability and bad interface design. Thus we decided to make a similar website which should resolve it's issues and provide a attractive interface with great usability.

2.0 TEAM STRUCTURE

Project Manager Mohammad Alif Hasan Khan	<ul style="list-style-type: none">• Responsible for knowing the stakeholders of the project and able to communicate with each other.• Responsible to create and manage budget and schedule of the project including scope, issues and risk management.• Responsible to develop and manage deliverables according to the software project plan.• Lead and manage software project team and assigning tasks to each members.
Software Coder/Programmer Farhan Ahmed	<ul style="list-style-type: none">• Responsible for using the requirement given by the team to create cost and timeline estimates.• Responsible to build the deliverables and communicating the status software project to the Project Manager. <p>Reduce project risk and provide the project software toward success.</p>

Software Designer Basil Bakri	<ul style="list-style-type: none"> • Design, develop and execute unit test plans, test designs, test cases, test strategies, procedures and processes. • Perform analytic strategies and interpretations of software applications. • Design and implement test scripts on test tools and scripting languages. • Recommend strategic improvement to optimize performances.
Software Usability Tester Md Hafizur Rahman	<ul style="list-style-type: none"> • Responsible for designing testing scenarios for usability testing. • Responsible to conduct the testing and analyze the result afterward before submitting to the team members. • Interact with the client to better understanding of product requirements. • Responsible to create test-product documentation and partake on testing related activities.

3.0 PROBLEM STATEMENTS

We really need a better AUST website as people nowadays seem do not like to read long passages compared with images and videos which making learning interesting. When people hear information, they're likely to remember only 10% of that information three days later. However, if a relevant image is paired with that same information, people retained 65% of the information three days later. (Mawhinney, J.,2019).

The eye-tracking studies show internet readers pay close attention to information-carrying images. In fact, when the images are relevant, readers spend more time looking at the images than they do reading text on the page. Images are powerful on their own, but when mixed with text they become even more impactful. Audiences consistently respond well to the combination of words and visuals. Articles with relevant images get 94% more views, on average, compared to articles without images. Social media was initially text-driven and audiences tended to react most strongly to this content. Today, it's visual pieces that garner the most views, likes, shares, and comments. For example, images on Facebook receive 20% more engagement than videos and 352% more engagement than links. This trend is likely to accelerate given that younger audiences prefer visual-first social networks. The Social Networks US Teens Use Most Often such as Snapchat, YouTube and Instagram.(Gigante, M. D. ,2019).

There is a research about people don't read a web page in the same way as they do a book or a newspaper. On average, a user will only read 20% of the content on page. (Jack Simpson, 2015) It is difficult to read lots of text on a computer screen. It strains the eyes and therefore makes it far less pleasant than reading something on paper. In addition,

eye-tracking studies have found that the majority of people read online content in an ‘F’ pattern. People browse the web they are looking for quick answers. If they don’t find the information that they want quickly and easily they’ll leave, go back to the search engine and try another link.

4.0 OBJECTIVES

The main objectives to propose this AUST website are as follows:

- To evaluate the UI of a existing website.
 - Evaluate user interface of AUST website from Human-Computer Interface perspective.
- To develop a prototype to improve the UI.
 - Develop AUST website to improve existing AUST to produce more interesting user interface
- To analyse the improved prototype.
 - Analysis and evaluate the prototype that has been built based on HCI perspective.

5.0 REVIEW

After reviewing AUST website (referring 9.0 Appendices), there are some problems found which are not friendly to be used. The description of the problems and suggestion to solve the problems are listed below.

Problems	Description
The content is too long to be read.	The content of each page is too long, user has to keep scrolling down to look for what they want. It wastes a lot time to scroll down instead of reading.
The content is too boring to read and didn’t provide images or videos.	There is no image or video in the reading page. The page is fulfilled of words with same fonts and size. It does nothing to capture attention of user.
Inappropriate location of the image	There home page has one picture but the picture is not located proper way.also for the other webpage the image location is not appropriate.
Too much navigation bar in one page	There are more than 15 navigation buttons inside the home page. Most of them don’t have any functionality.
Search button is not working properly	Search function of the website is not working properly. Also the position of the search option is not located properly.

All the webpage didn't have same design.	Some of the page have different design and it will make confusion to the users.

6.0 METHODOLOGY

We use Agile and User-Centered Design as it based upon explicit understanding of users, task and environment that driven user-centered evaluation based on user's experiences. User-centered design acts as decision-making activity to keep the trade-offs are balanced.

Four process involved in the design itself are:

- Establishing requirement
 - Gather informations and problems of requirements from users or clients
 - Analyze the data gathered on overcoming the problems and improve the existing website.
- Developing Alternatives
 - Producing the conceptual design and physical design of the website based on the requirements.
 - Transform the design structure into executable code.
 - Develop the interface based on the design and HCI perspects that able to attract users by the background colors, navigation and other icons design.
- Prototyping
 - Develop the prototype version of the website to improved understanding of users on the website and to allow the users get real sense on how to interact with the website.
 - The prototype used to evaluate the website and get feedbacks from users whether the websites satisfy their needs and requirement before the actual website is deployed to the users.
- Evaluating
 - Determine the usability and acceptability of the website by testing the website to the user tester to ensure the final product is successful.

7.0 SYSTEM DESIGN

7.1 LOW FIDELITY PROTOTYPE

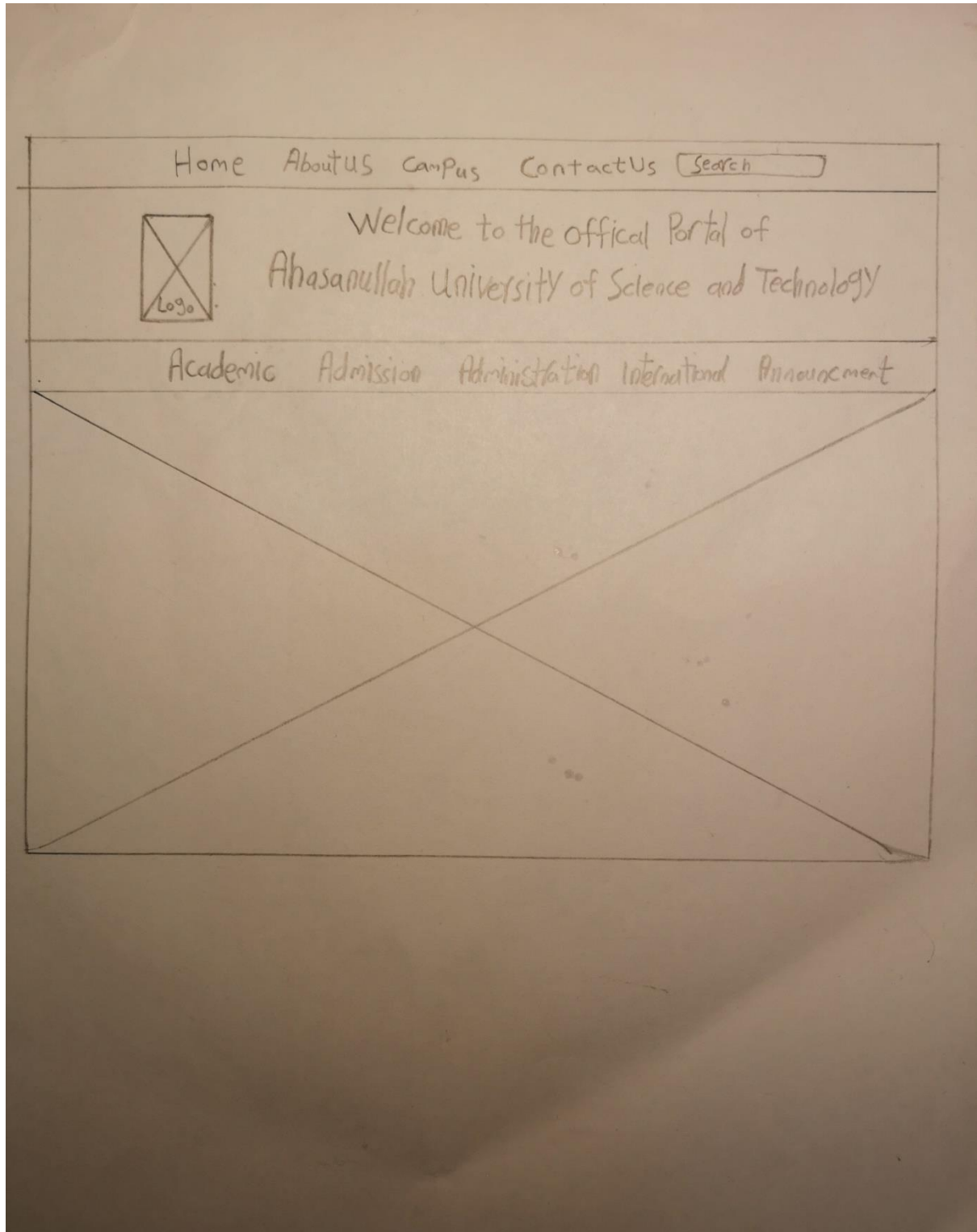


Figure 7.1

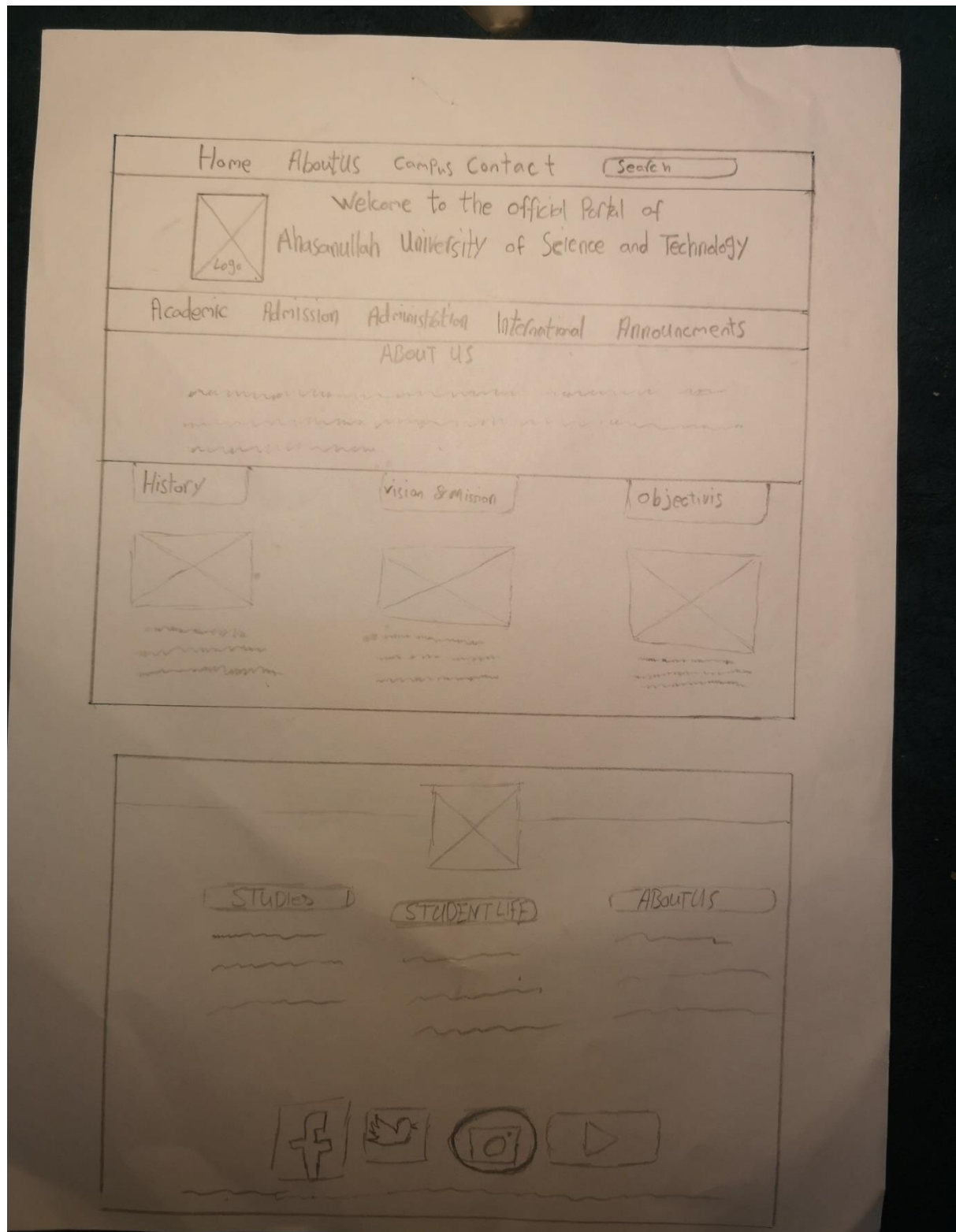


Figure 7.2 About us

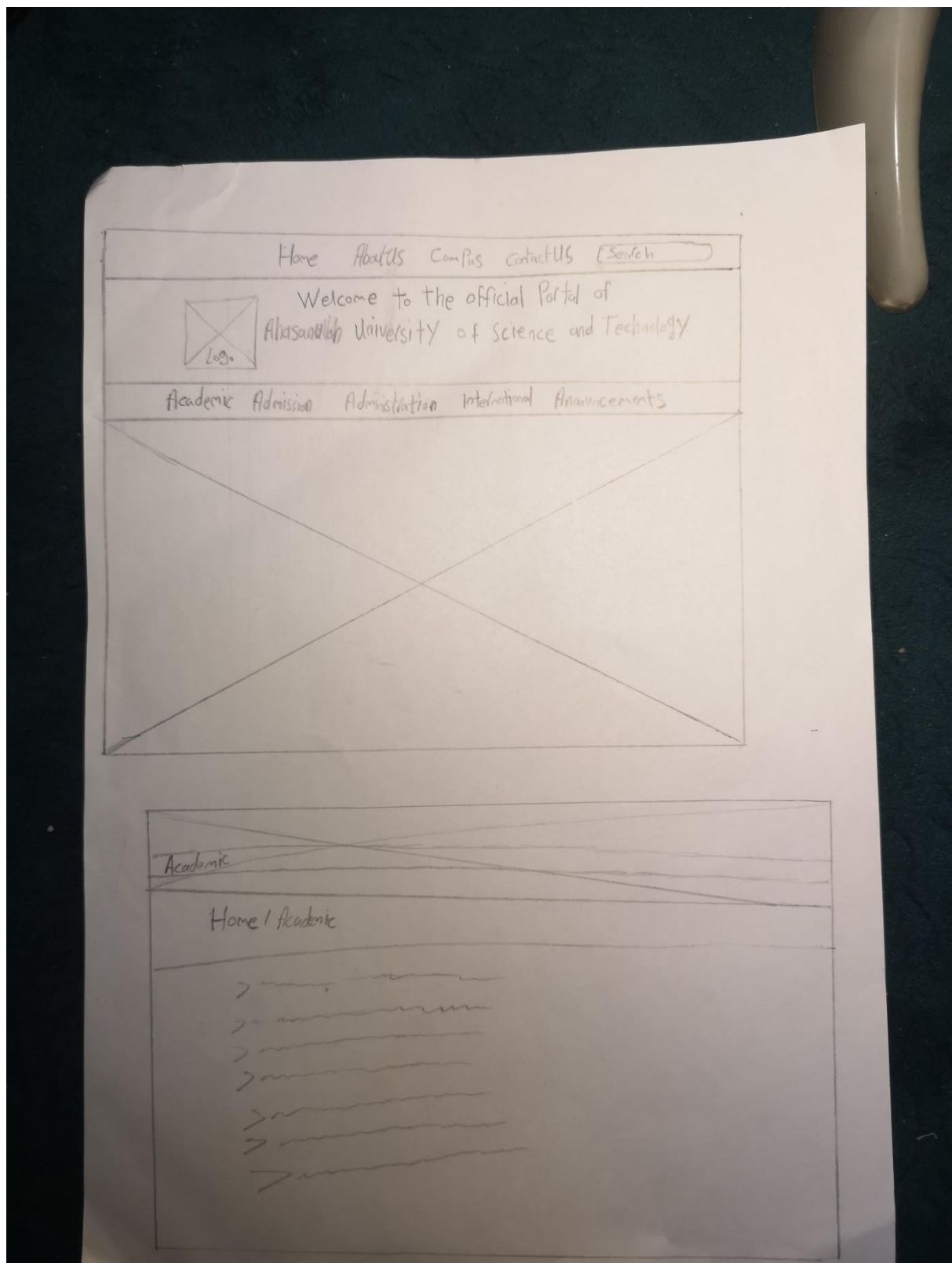


Figure 7.3 Academic

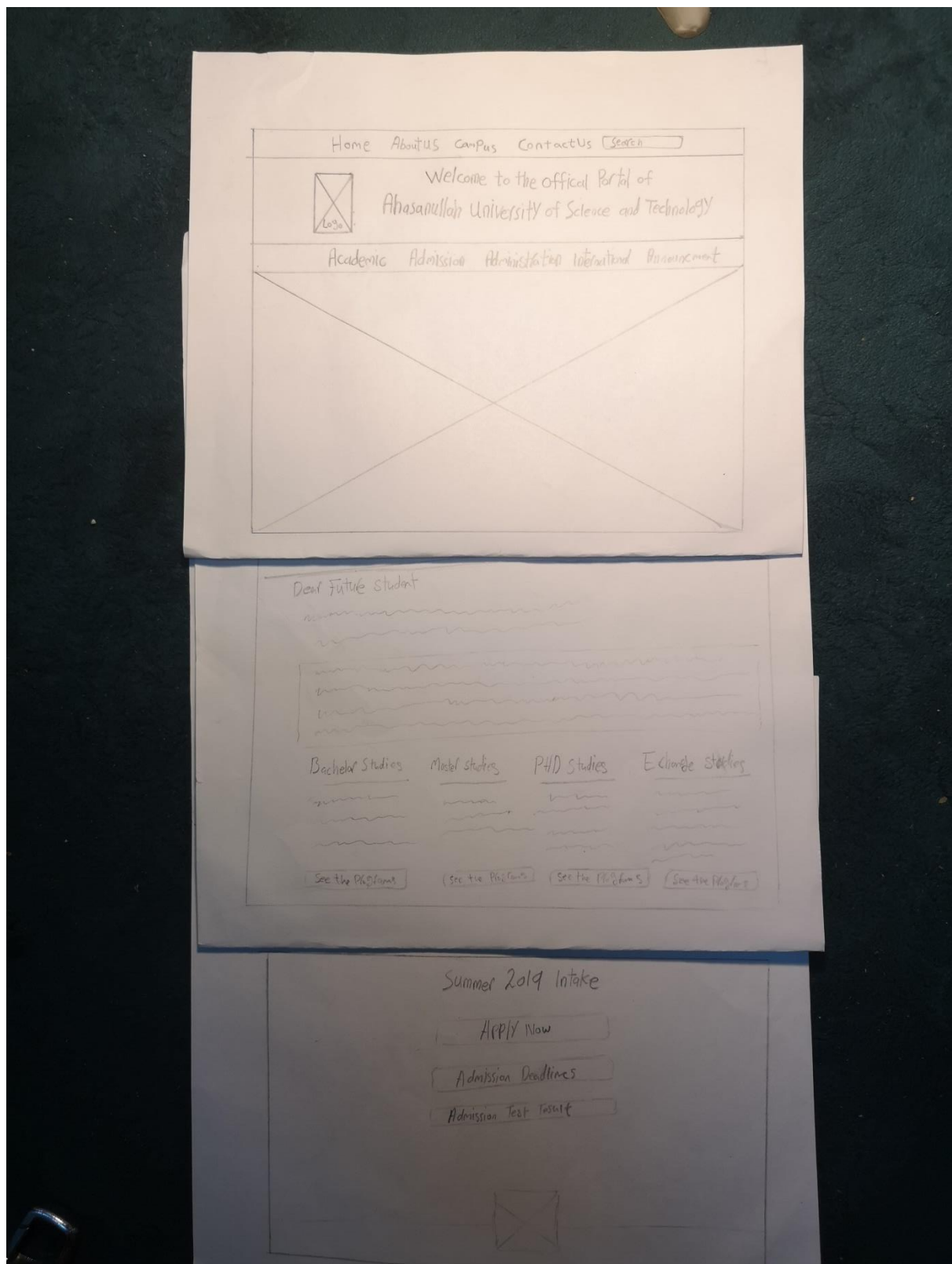


Figure 7.4 Admission

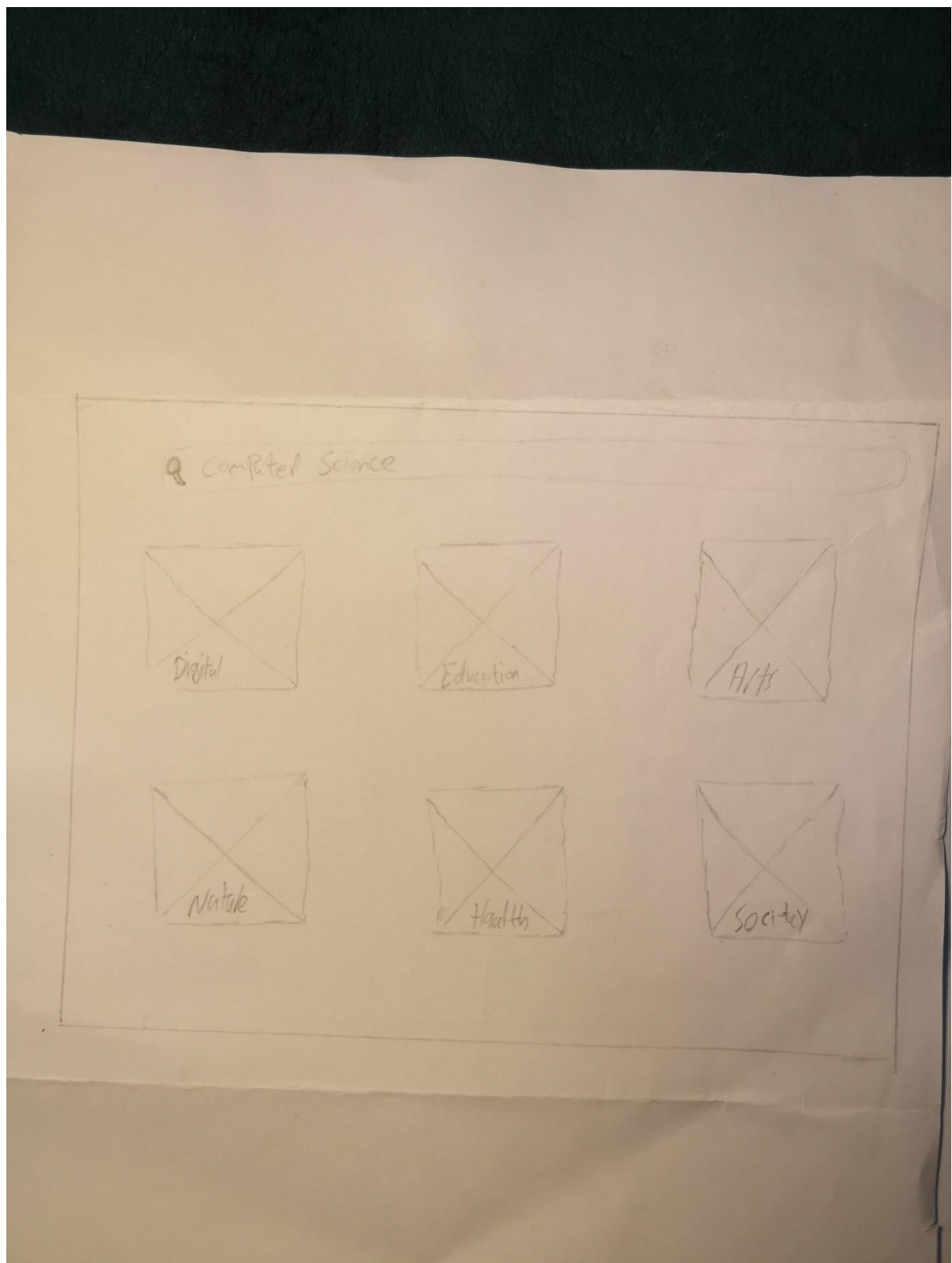


Figure 7.5 Admission

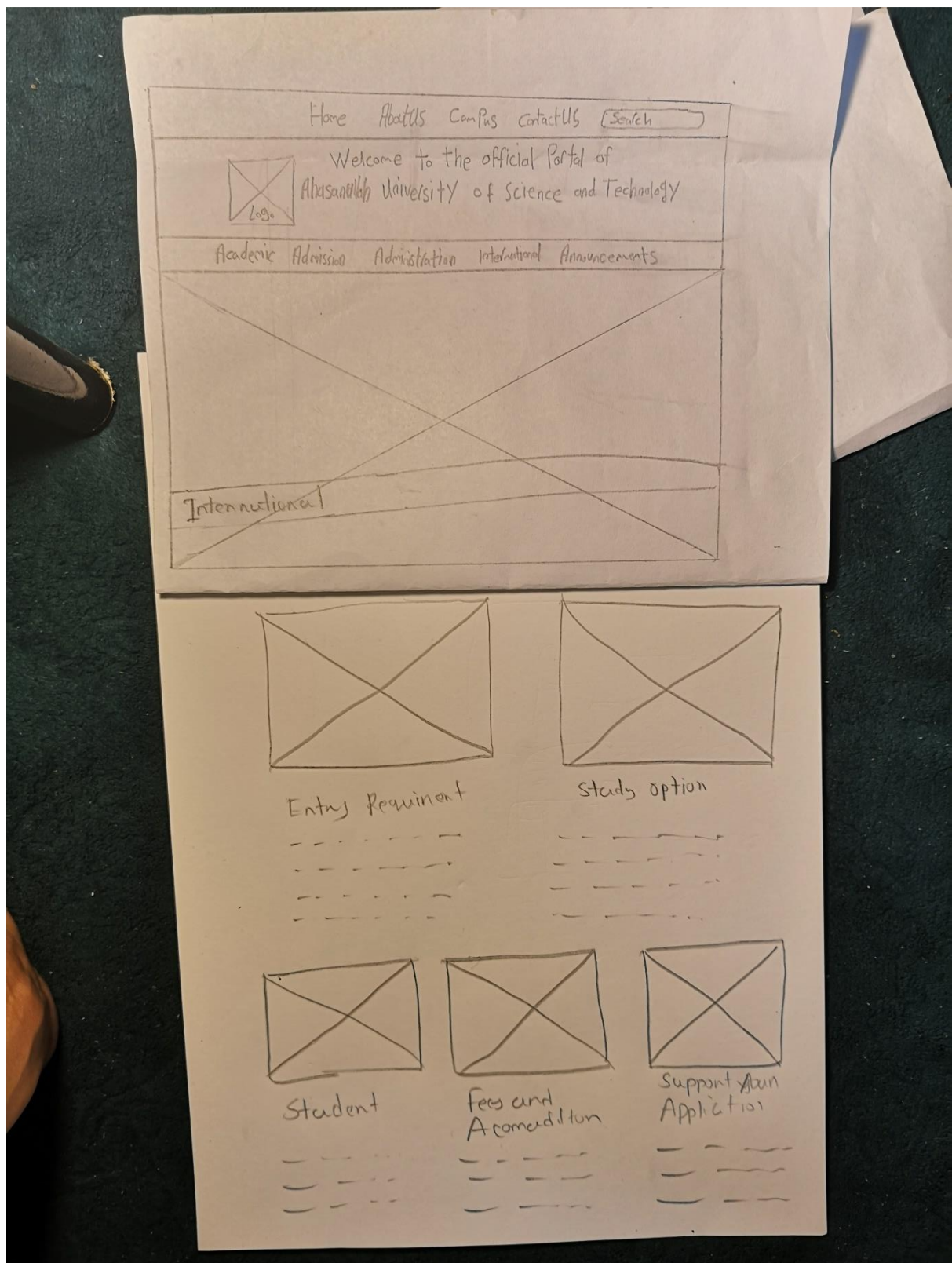
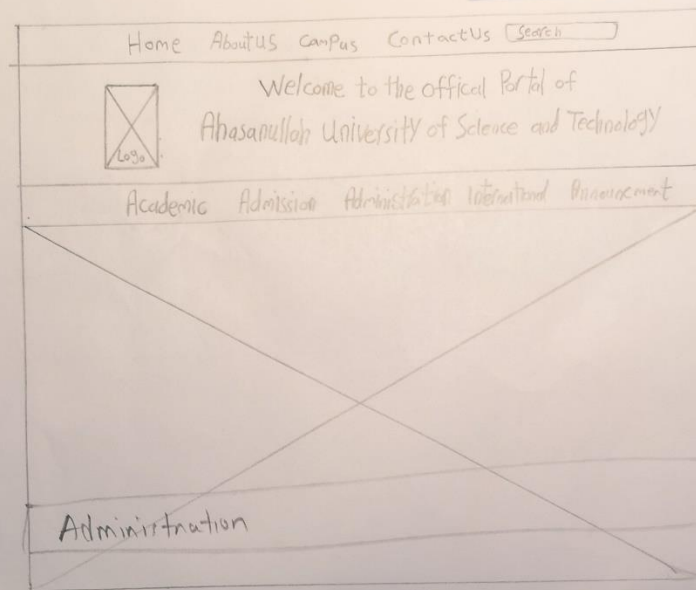
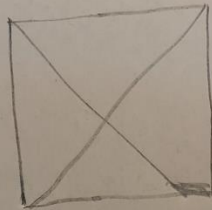


Figure 7.6 International



Office of the president



Profession

Administration

Admin-unitis

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0

0

Figure 7.7 Administration

7.3 IMPROVED PROTOTYPE



Figure 7.3.1 Home Page

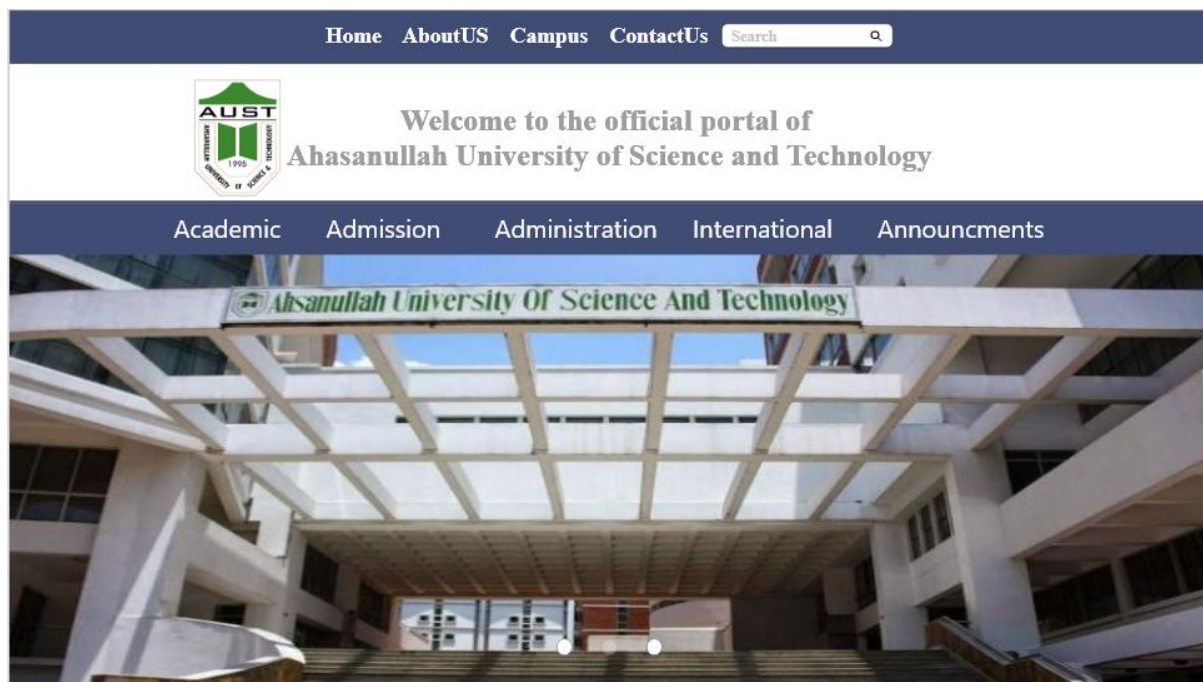


Figure 7.3.2 Home Page



Figure 7.3.3 Home Page

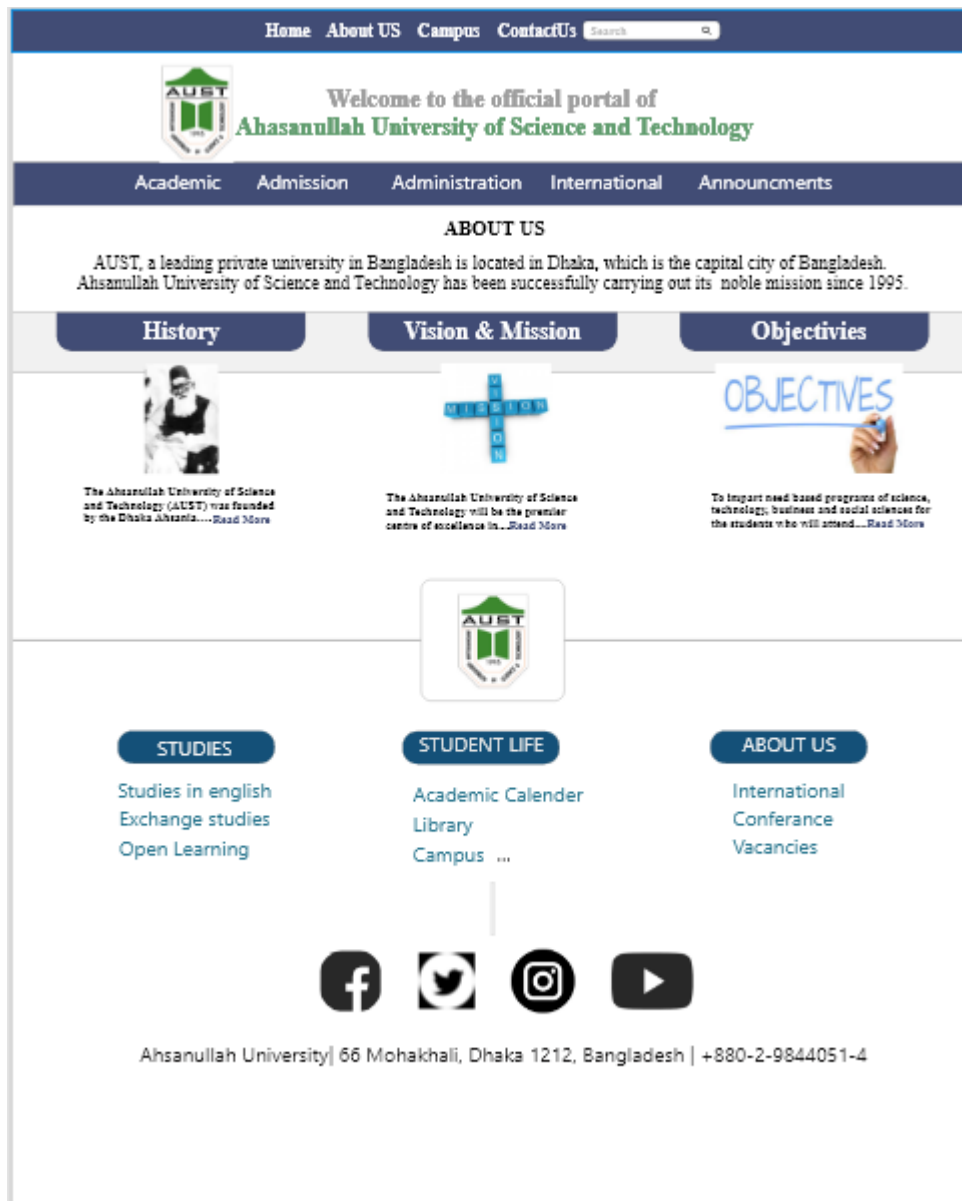
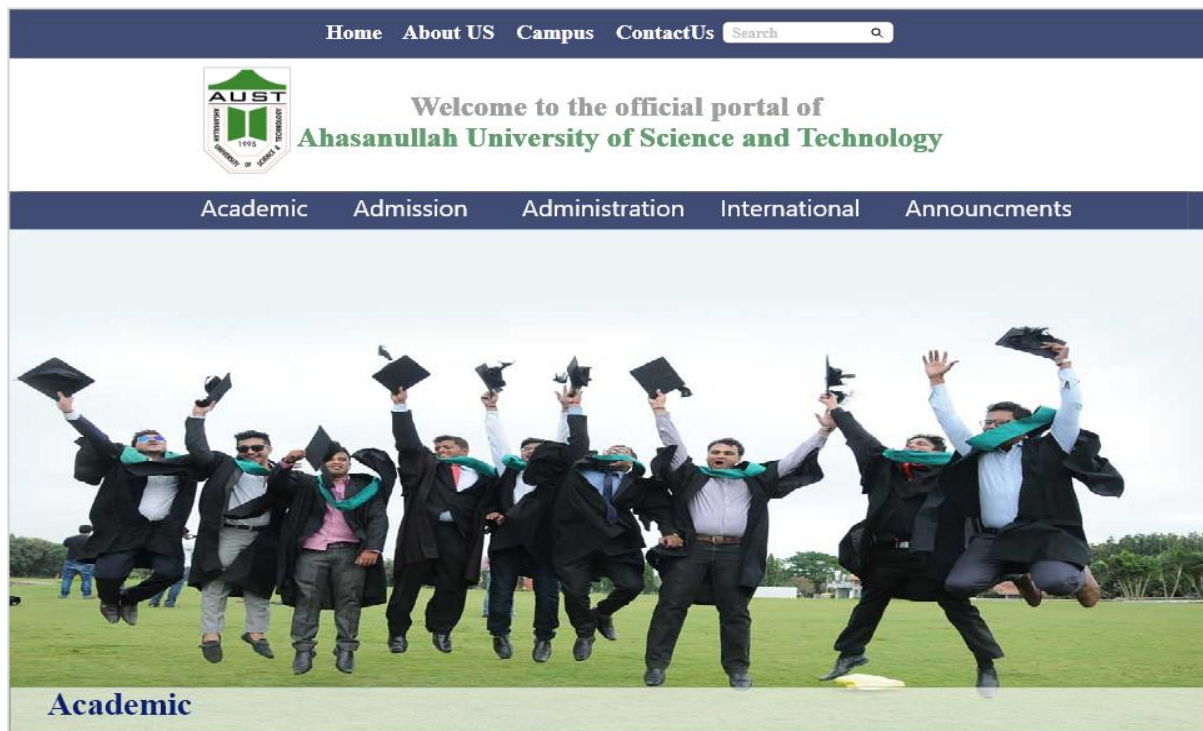



Figure 7.3.4 About us



Home / Academic

- > Recognition of Bachelor Degrees of AUS
- > Academic Rules and Information
- > Faculties, Institutes and Teaching Departments
- > Examination & Grading System for Bachelor Degree Programs
- > Academic Calander
- > Lab Facilities
- > Library Facilities



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Campus

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Vacancies






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Figure 7.3.5 Academic Page

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[AboutUS](#)
[Campus](#)
[ContactUs](#)



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Ahsanullah University of Science and Technology

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[Admission](#)
[Administration](#)
[International](#)
[Announcements](#)



[Admission / Home](#)

Dear Future Student

The admission for the Bachelor's and Master's degree programmes at Ahsanullah University of Science Technology! Take a moment to get to know our programmes, admission procedure and student life at .

Ahsanullah University of Science Technology welcomes qualified international students from around the world to apply for our study programmes taught in English. The students here appreciate not only the professional and academic environment but also the welcoming, open and friendly atmosphere of the university. Active international cooperation, well-known guest lecturers and our Bachelor's, Master's and Doctoral programmes in English help to create the multicultural university community.


<u>Bachelor Studies</u> A Bachelor's is the first level of the higher education study system. Bachelor's studies take three years. See The Programs >	<u>Masters Studies</u> Master's studies make it possible to focus on a more specialized subject. Master's studies take two years of full-time study to complete. See The Programs >	<u>PHD Studies</u> PhD is for those who want to develop a career in science. PhD studies take four years of full-time study to complete. See The Programs >	<u>Exchange Studies</u> Already a student? As an exchange student, you will find a warm welcome with us. Let your exchange studies be an experience! See The Programs >
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Figure 7.3.6 Admission Page




Figure 7.3.7 Aadmission Page

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Administration / Home

Office of the President



Professor A.M.M. Safiullah was born in Mymensingh, Bangladesh and had his early education in Chittagong (the then East Pakistan Cadet College, now Faujderhat Cadet College). He obtained the B.Sc.(Engg.), Civil, degree in 1969 and M.Sc. Engineering Degree in 1977 from Bangladesh University of Engineering & Technology, Dhaka. In August 2006 he was appointed.....[Read more](#)

Figure 7.3.8 Administration Page

Administration

Research, education and the dissemination of knowledge are the University's core activities. To handle the foundation and the facilities, a number of administrative and technical functions are tied to the University on various levels and involving many different tasks.

Administrative Units

The administration of the University is broken down into units. These offices collaborate and communicate with one another not only to maintain NYU's daily operations, but also to plan ahead for the future.

- **Provost and Provostial Units**
- **Executive Vice President**
- **University Development and Alumni Relations**
- **University Relations and Public Affairs**
- **Academic staff**



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Figure 7.3.9 Administration Page

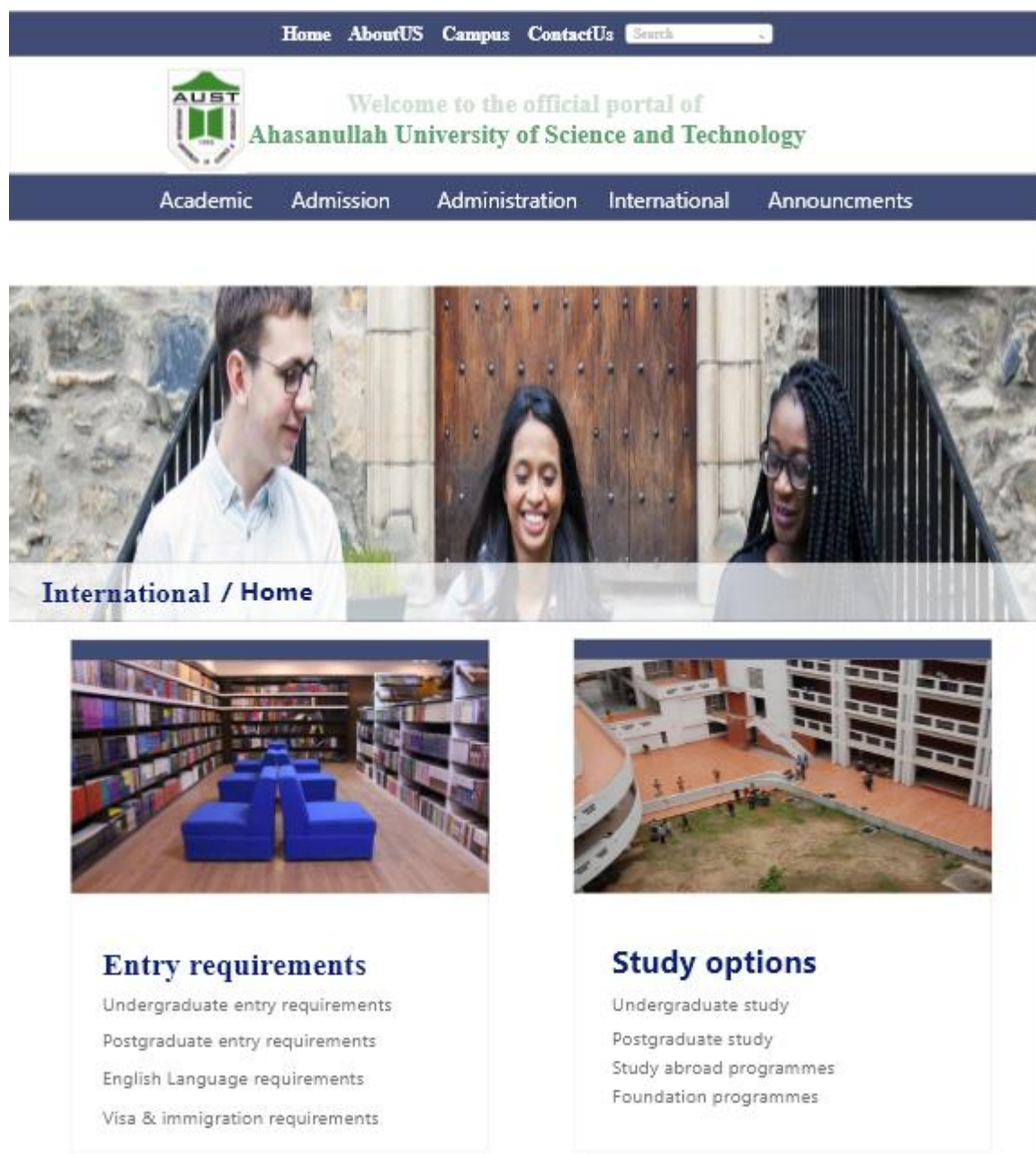


Figure 7.3.10 International Page



Student

find out living in
Aust



Fees & accommodatio

Tuition fees
Living costs
Accommodation



Supporting your application

Book an online
session with us



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Figure 7.3.11 International Page

Add-on / Improved Features	Rationale
Unnecessary information reduce.	From Figure 7.3.1 to 7.3.11 all the webpage has limited information where all the information is related with the website. Figure 7.3.4 about us, webpage is now more clear also user can easily read the webpage.
Search function work properly	Now in improve website search option work properly before it was not work properly and also the search option location was not appropriate.
Navigation bar	From figure 7.3.1 to 7.3.11 its clear that there is not much navigation bar. Before there were more than 20 navigation bar inside the home page but now in the improved website, there is 10 navigation button all the important item are included and unnecessary navigation button removed.
Text size,font, text alignment, consistency	From figure 7.3.1 to figure 7.3.11 its clear that all the webpage text has same color and also hase same size. Where all the webpage contain consistency.
White Space	From Figure 7.3.1 to figure 7.3.11 now all the webpage has white space before there was not proper white spacing. To make a website attractive we need to provide white space inside the website. now in our improved website, we provide appropriate white spacing.
Web page design consistency	A website should follow consistency. In our improved website, all the webpage follows the consistency in terms of their design. From figure 7.3.1 to figure 7.3.11 all the webpage has the same background color, same navigation bar, also the text size and text color are also the same.

Clear information	Aust website has several problems. One major problem is that they don't provide proper information inside the website. suppose for the online application they don't provide anything. But now for this issue, we include the online application option where user can easily apply for the program of studies.
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8.0 REFERENCE

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2. Gigante, M. D. (2019, January 11). It's All About the Images [Infographic]. Retrieved from [https://www.mdgadvertising.com/marketing-insights/infographics/its-all-about-the-image s-infographic/](https://www.mdgadvertising.com/marketing-insights/infographics/its-all-about-the-image-s-infographic/).
3. Mawhinney, J. (n.d.). 45 Visual Content Marketing Statistics You Should Know in 2019. Retrieved from <https://blog.hubspot.com/marketing/visual-content-marketing-strategy>.
4. Jack Simpson (2015, September 11). Why visitors only read 20% of your web page. Retrieved from <https://econsultancy.com/why-visitors-only-read-20-of-your-web-page/>.
5. Justin Mifsud (2015, June 22). Usability Metric A Guide to Quantify Usability of Any System. <https://usabilitygeek.com/usability-metrics-a-guide-to-quantify-system-usability/>

9.5 Project Log

Title : AUST

Group

Member :

1. Mohammad Alif Hasan Khan 191302
2. Farhan Ahmed 191522
3. Basil Bakri 186515
4. Md Hafizur Rahman 191396

No.	Date	Activity	Actions by Group Members	Members Sign
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1.	22/02/19	Discuss And Choose Topic For Project	<ol style="list-style-type: none"> 1. Review the existing websites. 2. Discuss and list the features of each website. 3. Choose Encyclopedia as the existing website to refer. 4. Discuss solutions of the features to be improved. 5. Decide a name for our website. 	
2.	01/03/19	Discuss The Content Of Project Proposal	<ol style="list-style-type: none"> 1. Discuss the content of the proposal. 2. Distribute tasks equally. 3. Create google doc and google slide to be shared among team members. 	
3.	12/03/19	Proposal Presentation	<ol style="list-style-type: none"> 1. Present the proposal by explaining introduction, literature review, problems statement and methodology. 2. Make refinement from Dr. Azrina 	

			feedbacks.	
4.	24/03/19	Test Plan Drafting	<ol style="list-style-type: none"> 1. Discuss the number of phases of test plan. 2. Discuss the content of test plan including elements, objectives, format, method, session length, number of tests and usability metric. 	

5.	28/03/19	Test Plan Presentation to Dr. Azrina	<ol style="list-style-type: none"> 1. Explaining each phases in Test Plan including Early, Middle and End. 2. Make refinement from Dr. Azrina feedbacks. 3. Finalize Test Plan. 	
6.	29/03/19	Early Test Plan	<ol style="list-style-type: none"> 1. Carry out early test plan by interview participants. 2. Answering the prepared questions such as completeness, time taken and likert scale of satisfaction in google form. 3. Analysis and calculate the result from the interviews. 4. Do discussion on result. 	
7.	05/04/19	Design Low Fidelity Prototype	<ol style="list-style-type: none"> 1. Discuss the logo and theme to be used. 2. Draw low fidelity prototype by using Adobe Illustrator. 3. The pages includes main page, content, 	

			categories and propose articles.	
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8.	11/04/19	Progress Review by Dr. Azrina	<ol style="list-style-type: none"> 1. Explain the progress of early test plan and low fidelity prototype. 2. Refinement from Dr. Azrina feedbacks. 3. Review and choose Usability Report Template. 4. Apply into AUST Usability Report. 	
9.	18/04/19	Low Fidelity Prototype Test Plan	<ol style="list-style-type: none"> 1. Carry out low fidelity prototype test plan by interviewing participants. 2. Answering the prepared questions such as completeness and likert scale of satisfaction in google form. 3. Analysis and result from the interviews. 4. Do discussion on result. 	
10.	23/04/19	Design Prototype	<ol style="list-style-type: none"> 1. Draw prototype by using Adobe Illustrator(AI). 2. The pages includes login, register, main page, content, categories, profile, edit profile, propose articles and articles list. 3. Marvel is used for wire-framing the designs drawn by AI. 	
11.	25/04/19	Prototype Test Plan	<ol style="list-style-type: none"> 1. Carry out prototype test plan by interviewing participants. 	

			<ol style="list-style-type: none"> 2. Answering the prepared questions such as completeness, time taken and likert scale of satisfaction in google form. 3. Analysis and calculate the result from the interviews. 4. Do discussion on result. 	
12.	01/05/19	Develop front-end of AUST	<ol style="list-style-type: none"> 1. Discuss among team and distribute the task equally. 2. Code AUST by using html, css and php. 	
13.	10/05/19	Finalize front-end development	<ol style="list-style-type: none"> 1. Finalize all the front-end part of AUST. 2. Do some refinements. 3. Demo among team. 	
14.	11/05/19	End Test Plan(Acceptance Test)	<ol style="list-style-type: none"> 1. Carry out cubicle test plan by recording actions of participants. 2. Answering the prepared questions such as completeness, time taken and likert scale of satisfaction in google form. 3. Analysis and calculate the result from the interviews. 4. Do discussion on result. 	
15.	12/05/19	Usability Report Documentation	<ol style="list-style-type: none"> 1. Complete all the parts of documentation including executive summary, purpose of 	

			<p>study, participants, method, findings and recommendation, discussion and appendices.</p> <ol style="list-style-type: none"> 2. Finalize everything. 3. Transfer to PowerPoint Slides for project presentation. 	
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