

DIT Physics Society

Project Report

DT228/DT282

Computer Science

**Arthur Coll**

School of Computing

Dublin Institute of Technology

**08/12/2016**

**Link to site: ArthurColl.com**



Declaration

I hereby declare that the work described in this dissertation is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other university.

Signed:

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# Problem Description

What problem does the site solve?

The site is designed to be for the DIT physics society, it consists of 5 main pages, each with different backgrounds and functions, the header and footer are consistent throughout all pages however.

The first page is the Home page which is what the user will be directed to from search engines, it features a nice image of some of the work done in the society, a short description of the society and its goals and links to the relevant social media pages, overlaid on top of the image transparently.

The second page is the about page which is a simple page which features rounded images of the 3 most important members of the society spread across the page with a short description of their achievements directly below each image. There is potential to add more people to the page.

The third page features a gallery which just shows some simple images of the society’s events and provides a more indepth description of the society itself and it’s goals.

The fourth page is a simple contact form with a number of boxes to filter, that records the data and sends it to an email address, this allows interested people to contact the society.

The fifth page is an experiments page which gives a number of simple and easy to perform at home experiments, to encourage users to engage in physics. Useful diagrams are attached and a step by step guide is provided beside these diagrams.

The archetypical users of this site would be students who are members or are interested in joining the physics society therefore the site is mainly focused on providing them info as opposed to functionality.

Industry professionals who are looking to give talks, or identify talent are also a smaller user set.

The Problem this site solves is the societys lack of a cohesive method of communicating with the members on a week to week basis, due to the multiple social media pages on different networks for the society which leads to confusion and lack of coordination. The site provides a one stop spot for everything the physics society and provides far more customizability than a social media page allowing a lot of extra content to be provided.

It also provides a show case for the things you can do and learn in the society.

# Research

The first and most important site I evaluated was a WordPress theme called lavish.

<http://demo.styledthemes.com/demos/lavish/>

I really like the style on first glance and took a lot of inspiration from it, elements of the nav bar and the footer really appealed to me and it generally provided a very clear cut and easy to understand way to deliver content which I tried to emulate.

The second site I evaluated was one of a friend who had similar features to above.

<https://alex.bates.is/>

Similar to the above Lavish the transparent nav bar really appealed to me on this site and the image taking up the centre of the page featured once again which really influenced my design for the homepage.

The larger than normal social media links below also became part of my site.

The main page featured mostly decoration and very little info which I implemented into my site, putting content on the sub pages instead.

This keeps users interested, engaged, and provides easy navigation.

The final website I evaluated was another wordpress theme

<http://demo.theme-fusion.com/>

This was the original theme I based my design on early in the project however many of the elements proved to hard to replicate or adapt to my site and as such it doesn’t feature much in the final site.

The way content is laid out on this site however is superb and it other pages such as the experiment page take inspiration from this.

# Technology Selection and Site Architecture

The site was designed primarily using HTML 5.0 and CSS 3, descriptive tags such as a section were used instead of div’s in most cases and the DocType html was declared. Hmtl 5 form elements were also used to design the contact form instead of javascript.

The site follows a standard layout with the footer and header staying consistent over all pages, the background is either a relevant image or white.

I attempted to use Relative units such as percent and em to increased compatibility among different devices and screen sizes. However in some places pixels had to be used to ensure the content laid out correctly.

It is expected that most users would browse the site on desktop as this is not a topic that they would be expected to browse on the go. I anticipate most users would use the site from college pc’s while on campus.

This site so far as I’m aware is completely cross browser compatible, it was tested in several browsers and it seems to function almost identically in all, I made an effort to not use partially supported or browser unique features and managed to mitigate the problems Internet explorer has with opacity by adding in an extra rule.

# Low Fidelity Prototype

Wireframe located at <https://wireframe.cc/I65UCf>

A cropped screenshot is also contained in the image folder however it is of inferior quality, the wireframe give the base lay out of the sites homepage and sets the style for the rest of the page.

The usability of this wireframe is good, since the user is not overloaded with information and the links are clearly labelled and large allowing them to navigate easily.

The efficiency this design is also good since the CSS file is cached in browser and applies across all pages meaning the site only has to transmit it once.

# Development Plan

The site will be created stage by stage, the first page to be created is the home page as this a complex page and will require some work so it’s good to get it out of the way first, following this the contact page will be created using most of the CSS from the home page and the basic layout of content sections/div from the home page.

Following this the rest of the pages which are similar can be designed using the basic html layout from the home page and similar CSS as well, the content can then be stuck in and minimal styling can be applied.

# Testing Plan

The DOCtype html was used to evaluate the sites adherence to current standards and compatibility, the site was also run through the W3 schools validators and a number of errors were highlighted and fixed due to this however it still has a number of warnings remaining which I did not have time to fix.

This site so far as I’m aware is completely cross browser compatible, it was tested in several browsers and it seems to function almost identically in all, I made an effort to not use partially supported or browser unique features and managed to mitigate the problems Internet explorer has with opacity by adding in an extra rule.

# Site Evaluation

The usability of this site is good, since the user is not overloaded with information and the links are clearly labelled and large allowing them to navigate easily.

The efficiency this design is also good since the CSS file is cached in browser and applies across all pages meaning the site only has to transmit it once.  
Info is provided in a consistent and easy to understand manner reducing the memory burden and reading necessary for the end user.

# Deployment

The site was made available online using Digiweb’s free student hosting, I ftped the files up onto the VPS provided using Filezilla and following this I used the control panel Hspehre to target my index page and make it available on the free ArthurColl domain provided.

A number of meta tags where added to the site to try increase SEO however the effectiveness is questionable.

There was no time to add more tags and most of the info described about them was contradictory.

# Appendices

Web Dev 1

Weekly Project Report – Week 10

Please provide a brief overview of the research or tasks that were completed on your project this week:

As Part of this weeks work on the CA I began implementing the wireframe.

I started with the about page and created the sections and classes I was going to use for the individual members of the team, I used lipsum text and images as placeholders, for filling in with real content later.

I also unsuccessfully tried to embed a twitter feed into the bar of my site, it did not seem to work however and I will try again later in the project.  
I also implemented the base lay out of the site, including adding the headers nav bar, and styles.

Web Dev 1

Weekly Project Report – Week 11

Please provide a brief overview of the research or tasks that were completed on your project this week:

I started adding functionality to my site this week, I added the basic functionality of a calendar for the calendar page, Unknown if this will work and be part of final release.

I also added a Javascript contact form to allow the users to contact the admin of the site.

I also put in some work on the home page of the site.

Planning to add a twitter feed next week.

Web Dev 1

Weekly Project Report – Week 12

Please provide a brief overview of the research or tasks that were completed on your project this week:

Site was finished this week, home page had the links for social media fully added.

Contact form was made submit to an email using mailto.

Background images where added to all relevant pages.

Gallery was created using basic layout.

Expirements were created using free content.