Oasis's new website

A. Requirement?

In current and upcoming times, a well-designed website is crucial for representing an organization's consistency, achievements, legacy, etc.; we agree. As the Ecology Club of IISER Berhampur, Oasis has been a beacon of multiple new initiations on campus, and the team's effort has been combined with the students' participation in environmental, ecological, and biodiversity topics. A professionally managed and organized website will showcase our past accomplishments and serve as a platform for future initiatives, collaborations, and educational outreach.

Oasis has been doing various impactful activities, including student competitions, organizing birding trips, exploring the natural world, and hosting other impactful events. These endeavors have significantly contributed to spreading awareness about ecological and environmental issues within IISER Berhampur and beyond. Our efforts have consistently aimed at creating a sustainable and eco-conscious community of mutual minds, and a dedicated website will further amplify our message and outreach.

A well-structured website for Oasis will serve multiple purposes. It will provide a centralized hub for information on our projects and events, facilitate communication and collaboration with other eco-conscious groups, and offer educational resources for the broader community. Additionally, it will help document our journey, celebrate our achievements, and inspire others to join us in our mission. The website will enhance our visibility, expand our impact, and further our commitment to environmental stewardship.

Oasis does not have a dynamic website currently; the one hosted on Google Sites takes much effort to get updated, which is a burden for the members and can be made easier with a dynamically built website that is more data- and content-oriented after deployment. Both user-friendly and Internet-competitive, it is also built with all the broad user types and user bases around the globe in mind.

Other important details are explained as the document progresses.

B. This Document has -

- A. Introduction, as above.
- B. Major things to include in the website
- C. The exceptionally standing things
- D. Work progress till now screenshots and descriptions
- E. Requirements
- F. Problems
- G. Conclusion

C. Major things to include in the website

- 1. Event Routine, event timeline, post event description.
 - a. Event Calendar for upcoming and yearly event scheduled in Oasis 365
- 2. About, team, team structure, details
 - a. Past members, advisory, and etc
- 3. Records Records for every documentation for initiation of various things we made
- 4. Projects Extramural or big projects we hold
- 5. Library A section to which people can upload their content of Document, it can be their report, reviews, publication house etc the in house publication firm.
- 6. Columns A short read and writing section open to every registered user on the platform.
- 7. Stocks A firm through which we can share these things with the other users people
 - a. Merchandise
 - b. Datasets
 - c. Image sets
 - d. and other possible dumps
- 8. Interact A section by which the outsiders can interact with Oasis, an outreach section
- 9. Ecoplunderer The eBPR Module to which people can upload their sightings, and it will be compared to a core database of existing species information and the whole collection will be in an spatial format, the same dump can be given open access which can be used by other people.
- 10. Oasis Tree a section in which we will show the major happenings in Oasis.
- 11. FAQs

D. The exceptionally standing things

1. Minnerva -

The 24*7 functioning automated PHP engine which has multiple possible functions in it. Minnerva can be equipped with multiple logics and accordingly it will automatically function when triggered, such as sending OTP, automated mails, mail responses, and unlimited possibilities.

- a. Minnerva is the prime agent for handling security protocols, such as Sending OTP and verifying them in case of user registration, password reset, etc.
- b. Incase of other priority conditions, Minnerva which can be used.
- 2. Ecoplunderer
 - a. The eBPR protocol, in which users can submit their sightings for species and organisms, in multiple stages the entry will be inserted into the main database.
 - b. A core database with every species information will be online to compare the insertion.
 - c. GPS information and other things which can be automatically fetched from the image metadata.
- 3. The user base
 - a. The user base is aimed to be people from recognised universities and colleges only, their identity will be verified by their institutional email address.
 - b. The point is done in order to keep the environment sanitized and disciplined, preventing occurrence of any unsolicited activity by an anonymous/ unknown person, but with the institute affiliation we can trace such happening.
- 4. User security
 - a. Upon successful launch of the website, the plan is to mail the computer section admins of the respective institutions in order to get an agreement to allow their users to create an account in our platform.
- 5. User records and membership
 - a. membership is permanently activated, users can deactivate, but can not delete an account.

- 6. User contribution and recommendation
 - a. To contribute to any interactive section, the platform requires a user account.
 - b. The user records will be tracked, recorded and stored.
 - c. User's contribution will be recorded and will be given critique and credits.
 - d. When a user wishes they can download an automatically compiled report of their contribution, which they can use for their professional usage, and a manual recommendation can also be issued in case of exceptionally well contributed users.
- 7. User interface and user experience
 - a. The user interface is crafted and tuned in such a way that users of every tier in terms of education and professionalism can use them, the accessibility of interface is also made such a way that it does not cause any visual inconvenience in case of visually impaired personalities.
 - b. The site also has Dark mode functionality.
 - c. The animations and representation of visuals are dedicatedly designed.
- 8. Language
 - a. Aiming clause D-6.d, and other aspects the website has multilingual functionality such that it does not have any continental restrictions for usage among students or during, contd.
 - b. The students showcase their activities to a dignitary who has other preference of language.
 - c. This protocol will help for the diversified approach to different communities as well.

Select Language	G	
>Select Language	Japanese	→Russian
→Afrikaans	→Kannada	→Spanish
→Arabic	→Malay	Swedish
→Bengali	→Malayalam	∍Tamil
→Danish	→Marathi	∍Telugu
>Dutch	→Nepali	→Urdu
→French	→Norwegian	
→German	→Odia (Oriya)	
→Gujarati	→Polish	
→Hindi	→Punjabi	
→Indonesian	→Romanian	

9. Compatibility

- a. Data dump export/ download is made very simple so that anyone can download and use the data as per their wish, mentioned with proper attribution to Oasis.
- 10. Legal
 - a. Incase of unsolicited activity over the website which will be automatically governed by Minnerva (textual only) such as word detection, verbal abuse, etc, immediate mail will be automated to the Oasis Admin and necessary action will be taken, which maybe deletion/ hiding of the activity or deactivation of the user account, applies to clause D-5.a.
 - b. Inorder to have a proper governance preventing unnecessary spam, regular supervision will be done manually.
 - c. Proper attribution will be maintained for each and every positive contribution which the contributor reserves rights.
 - d. Records, finance things, major certifications will be recorded with blockchain algorithms (the next has a link with the previous and so on, one tamper and the whole chain will be seen as broken), so no tampering will be there.

- 11. Stats, certification and recommendation
 - a. As mentioned above, each contribution will be tracked and monitored, and they will be gone through a stats algorithm.
 - b. For every contributor, there will be a feature through which they can download their card of appreciation mentioning their stats, which can be cross checked with the website if needed.
 - c. The users can also issue recommendations if they have done exceptionally well.

12. Forum for discussion

a. In this section any user can post a question of concern, to which other users can reply and give their opinions

E1. Work progress till now - Designs and layouts

All of the algorithms, data flow diagrams, and depictions have been planned already, and more than 70% of the work has been done till now, which was done in intervals.

- 1. Unfortunately because of unavailability of any free to use global website hosting server, the working run can not be demonstrated, however attached are screenshots and their explanation of the already accomplished work.
- 2. Please do not focus on what has been written as content, this documentation aims to represent the layouts and working wireframes.

A. Landing page/ Homepage

Oasis The Ecology club

We praise where we belong



G

About us

Formed for a reason !

The Eco club of Indian Institute of Science Education and Research (IISER), Berhampur – Oasis, was found in September, 2019. Our club mentors, Dr. Bodhisatta Nandy and Dr. Jose Sebastian have always emphasized about conserving biodiversity and nature. It was during those challenging times in Odisha, when the cyclone Fani had caused major destruction, they strived to promote environmental and ecological awareness. Influenced by them, we, the students of IISER Berhampur from diverse academic disciplines pioneered to establish our very own eco club with the motto of appreciation and conservation of biodiversity and natural resources.

Explore history



the change



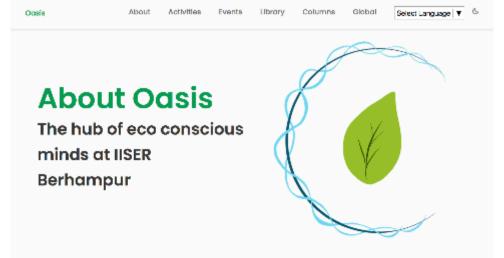
ionsdasdasd





A. The above image is for the Home page, simple and responsive.

About/ team page -



About us

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Championing eco-awareness through nature walks, talks, and fun, scientific events for a sustainable college community.

Valuing Ecology at Global Level

Faculty Advisors



Valuing Ecology at Global Level

Coordinators



Valuing Ecology at Clobal Level

Internal Coordinators



Event detail page

final 32 test

A final test 01 85°50'16.43" E

Hello Hello Brief text

conducted at IISER Permanent Campus on 3rd of March, 2024





Heading one

Body Content One

Heading Two

Body Content Two

Heading Three

Body Content Three

Body Content Four

What they said -

Testimonlials from the event

Backend page from v	which the admin	can control the site
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Oasis x USERNAME			Base		Logout	Logout	
Minnerva	Add	Event					
Index page	ID	Date Held	Title	Brief	Venue	Addl	
The change	8494	2023-01-01	test	yes sytevsfhsdfasdv	IISERBPR	info	
About page	8495	2023-01-01	test	yes sytevsfhsdfasdv	IISERBPR	info	
Team Members	8496	1221-12-12	ij	nj	d	info	
Activities page	8497	1221-12-12	IJ	nj	d	info	
Activities Top Image	8498	1221-12-12	ij	nj	d	info	
Events page	8499	1221-12-12	ij	nj	d	info	
Add Event	8500	1221-12-12	losodf sdfsd sd sdfsdf sdf s ssssssss sss ss	nj	d	info	
Oasis Tree	8501	2024-03-03	A final test 01 85°50'16.43" E	Hello Hello Brief text	IISER Permanent Campus	info	
Feedback Connections Manage Institutions Manage users asked Recomendations Records Records							

E2. Work progress till now - Security and protocols

Security, Login, Password, Minnerva -

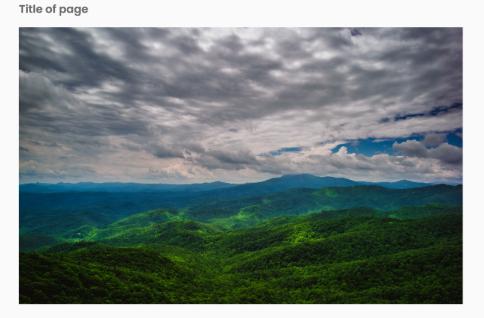
The website security is powered by Database, Minnerva, and OTP protocol.

- 1. For Signup, resetting password, a randomized alphanumeric password will be sent via email.
- 2. Login notifications are sent via email too.

Dynamic pages

Most of the dynamic pages have been designed already, which includes -

- 1. Login, Password, Minnerva protocol
- 2. Backend system for User Base management
- 3. Home page
- 4. Events page, Individual event detail page in both front end and data addition backend page
- 5. Team page, past members page both front and backend
- 6. Projects page, common and description both front and backend
- 7. Columns, C-6



title2

test

brief jksdjnnsalkfdjbnljkfdancjwknefdlknsmncm

heading1





nbxcbl adhxm;idx;owlq

heading2

hadbbhcx kehxljksnX;LNJLwjcx ;lijWCMX MLWEJc p

Visuals



Comments-

thanks decan dede for contributing to the column. submitted at 2024-02-02 16:35:48

- 8. Ecoplunderer, Partially done
- 9. Open pages guidelines for external people, mailing and feedback sections
- 10. Oasis Tree

11. Records page, both single and common, - front and backend

As mentioned in the above section, more than 70% of the work has been done already, whereas the algorithms and data flow diagrams are already designed. Rest of the things will be done soon.

Well, this thing will never be 100 %, since it will keep evolving with time, ideas, requirements, matching Global WWW, internet changes, etc. but at the current stage it is ready to be public.

F. Requirements

This Website applications requires standard hosting things such as

- 1. <u>Domain name</u> we aim to have a domain name which has the iiserbpr name in it in order to prove the authenticity of the website, which will be beneficial for the security, trust as well as for SEO.
 - a. Keeping the other clubs and SAC of iiser Berhampur, <u>https://students.iiserbpr.ac.in/oasis</u> is the proposed domain name, where students.iiserbpr.ac.in is a common place for all clubs, and privileges managed for different folders such as for /oasis/
- 2. <u>Web Server</u> It is a must requirement. We aim to host the site in the institute server itself in an **Apache** server, or any other available.
- 3. SSL Certification
- 4. Disk Space This is our major concern, please read below points for more details
 - a. We aim this application to run for the next 10 years at least, it is designed and developed in the same manner too.
 - b. The ePBR section will take Visual samples from the users, which again requires space.
 - c. Media files from our side (only images and documents, videos will be relayed from youtube), also require space.
 - d. Hence we request for 30GB space, initially.

Why only the Institute server?

Keeping these things in concern, We want this website application to run in the institute server, only

- 1. The longevity we aim for at least 10 years of survival of this website, hence need a reliable trustworthy base.
- 2. SEO We need the contributions to be surfaced on the internet, which will be easy with the institute affiliation.
- 3. Storage space trust and SSL The other hosting providers from WWW take money, not trusted SSL, and even backups are not easy, which can be easily managed when the server is in our local.
- 4. To stay SPAM and ad free the hosting providers, a few times relay ads on the websites, which they later say is a technical glitch.
- 5. Bandwidth and connection restriction hosting providers have this restriction.
- 6. CDN and QDNS the institute server and hosting network have CDN and QDNS as it is an .nic network, which will benefit this Oasis site a lot.
- 7. Security when merged with the institute platform, it will have the same security as the institutes server,
 - a. The Oasis site will have data from multiple users !
 - b. The ePBR plan will have demographic information from the contributors, also the data is aimed for legit use purpose.

There are other multiple major and important factors behind aiming to merge and host Oasis website in our local institute server.

G. Problems

These are the following problems which we have, or will be occurring in future, with proper/ suggested measurements for countering them.

- 1. The name In a recent proposal, we aimed to have **Wildlife** in its name. We either should do it before it gets online, since it will require changes in multiple locations, documents, SOPs, etc. This can be done later, but better if done now.
- 2. Management of the codes The codes are written, which are of professional standards, hence the next admin for these codes must match the standards. Although that won't be an issue, since it is enough built, not requiring further modification, and the management section is made in user friendly interface already.
- 3. Backup, continuous observation for a few days in case of fault code (2%), there could be a glitch.
- 4. Server, Hosting Better if hosted on the institute server.

However the biggest Problem is **Understanding the project's potential and corners of detail.** This Web-App has multiple major components, manually tuned and designed. 100% usage of these deployed protocols is **expected.**

G. Conclusion

Concluding the documentation and work status -

Currently, Oasis does not have an active website, and the one it has requires an overburdening of work, which is not what the team deserves. At the same time, Oasis requires a website to show the regular things but something unique and special to stand out among its peers and other organizations, matching the current stage of WWW and aiming for future changes. This project has been developed after curating the current states of biodiversity, internet, peers, gaps in mentioned things, etc.

Enough work has been done already to make this site public. The team is ready to manage the site. A few more things will be done as time passes, and more things will be added in the future.

The requirements are permission from the faculty advisors and FICs, which will then be proposed to the Computer Centre for Server allocation, which is a must.

Documented 15th June, 2024 Subrat Mallick Club Coordinator Oasis - The Ecology Club