

**SEO ANALYSIS FOR EVENT REGISTRATION**Prasanya K¹, Dhivya K², ArulSelvam P³*B.E Student, Dept. of CSE, Nehru Institute of Engineering and Technology¹**B.E Student, Dept. of CSE, Nehru Institute of Engineering and Technology²**Assistant Prof., Dept. of CSE, Nehru Institute of Engineering and Technology³*

ABSTRACT—Search Engine Optimization affects the presence or appearance of a website in the first page of a search engine. The visibility of a website can be paid or unpaid, but generally if a website wants to appear in the top position after an organic search then search engine optimization is the most important strategic tool to use. The whole internet marketing strategy circles around the SEO. The search optimization processes try to follow the working pattern of all the search engines and more specifically try to consider the algorithm used in search engines. If a website wants to optimize its SEO and improve SERP(Search Engine Results Page) position then it has to take care of all those SEO tactics. Auto Mech Student Design Competition Pvt. Ltd. (AMSDC) is an organization for which the website is to be developed along with Search Engine Optimization (SEO). The website is for students to register for National Level Inter Collegiate Competitions. Search Engine Optimization is a method to increase the visibility of the website in the search results. Ranking of the website will be increased by means of SEO.

Keywords-internet marketing; search engine; optimization; SERP; SEO

I. INTRODUCTION

Search engine optimization (SEO) refers to techniques that help our website rank higher in organic (or “natural”) search results, thus making our website more visible to people who are looking for our product or service via search engines. SEO is part of the broader topic of Search Engine Marketing (SEM), a term used to describe all marketing strategies for search. SEM entails both organic and paid search. With paid search, we can pay to list your website on a search engine so that your website shows up when someone types in a specific keyword or phrase. Organic and paid listings both appear on the search engine, but they are displayed in different locations on the page.

Search engines actually attempt to scan the entire online universe and index all the information so they can show it to us when you enter a search query. How do they do it? Every search engine has bots, or crawlers, that constantly scan the web, indexing websites for content and following links on each webpage to other webpages. If the website has not been indexed, it is impossible for our website to appear in the search results. Unless we are running a shady online business or trying to cheat your way to the top of the Search Engine Results Page (SERP), chances are your website has already been indexed. When a search query is entered, the search engine looks in its index for the most relevant information and displays the results on the SERP. The results are then listed in order of most relevant and authoritative.

In this project SEO analysis for event registration, we concentrate on increasing visibility of the website. It is for the purpose of increasing the number of participants for the event. We submit the website for the plagiarism checking. From the result, modify the low quality content to high quality content, then write the keyword, meta description related to the website and produce more number of primary keyword pages and interlink them with each other which helps to crawl the website again and again.

II. DESIGN

Design is the first step in the development phase for any technique and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization.

Once the software requirements have been analyzed and specified the software design involves three technical activities – design, coding, implementation and testing that are required to build and verify the software. The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system. Design is the only way accurately translate the customer’s requirements into finished software or a system. Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

Whenever you enter a query in a search engine and hit 'enter' you get a list of web results that contain that query term. Users normally tend to visit websites that are at the top of this list as they perceive those to be more relevant to the query. SEO is a technique which helps search engines find and rank your site higher than the millions of other sites in response to a search query. SEO thus helps you get traffic from search engines.

2.1. UML diagrams

UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

There are various kinds of methods in software design:

They are as follows:

- Use case diagram
- Sequence diagram
- Collaboration diagram
- Activity diagram
- State chart diagram

2.1.1. Use case diagram

Use case diagrams model behavior within a system and helps the developers understand of what the user require. The stick man represents what's called an actor.

Use case diagram can be useful for getting an overall view of the system and clarifying who can do and more importantly what they can't do.

Use case diagram consists of use cases and actors and shows the interaction between the use case and actors

- The purpose is to show the interactions between the use case and actor.
- To represent the system requirements from user's perspective.
- An actor could be the end-user of the system or an external system.

A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name use case diagram is a behavioral diagram that shows a set of use case and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary actor – user, admin and system.

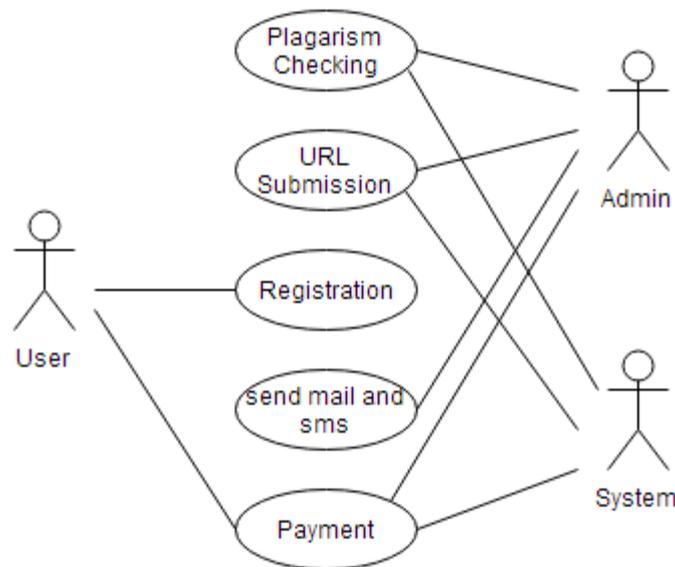


Figure 1. Use case diagram

Here the admin checks the quality of content written in the web page using the plagiarism checker, then submit the URL to the search engine. User registers for the event, pay money by online, instant E-mail and SMS verification are sent to the registered users by admin with the help of system.

2.1.2. Sequence diagram

Sequence diagram and collaboration diagram are called interaction diagrams. An interaction diagram shows an interaction, consisting of set of objects and their relationship including the messages that may be dispatched among them. A sequence diagram is an introduction that empathizes the time ordering of messages. Graphically a sequence diagram is a table that shows objects arranged along the X-axis and messages ordered in increasing time along the Y-axis.

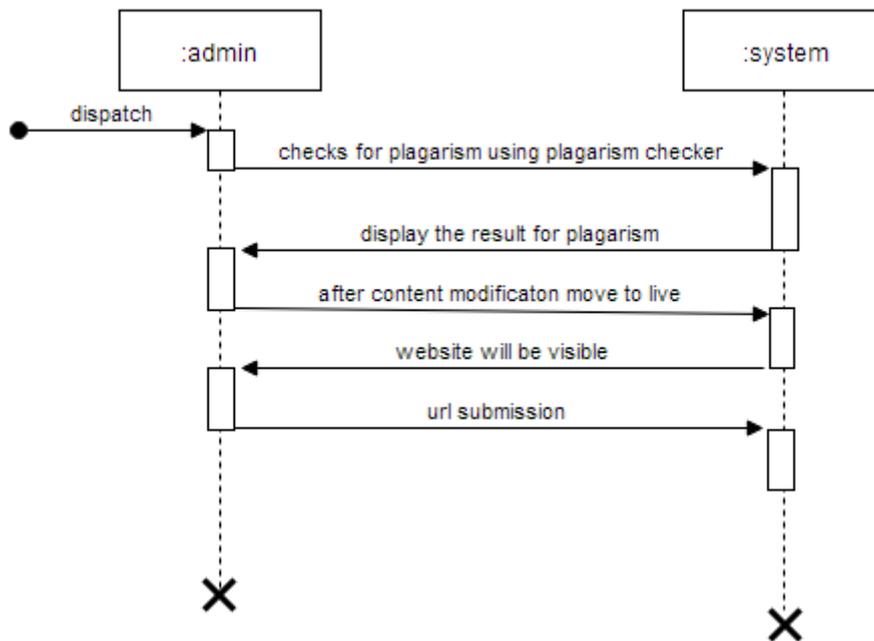


Figure 2. Sequence diagram for event marketing

Here the sequence diagram shows the sequence of action done by admin and system when the event marketing takes place in a web site. The above sequence diagram shows the On-page SEO process done by admin for AMSDC website.

2.1.3. Collaboration diagram

A collaboration diagram is an introduction diagram that emphasizes the structural organization of the objects that send and receive messages. Graphically a collaboration diagram is a collection of vertices and arcs. Model collaborations between objects or roles that deliver the functionalities of use cases and operations. Model mechanisms within the architectural design of the system. Capture interactions that show the passed messages between objects and roles within the collaboration. Model alternative scenarios within use cases or operations that involve the collaboration of different objects and interactions. Support the identification of objects that participate in use cases.

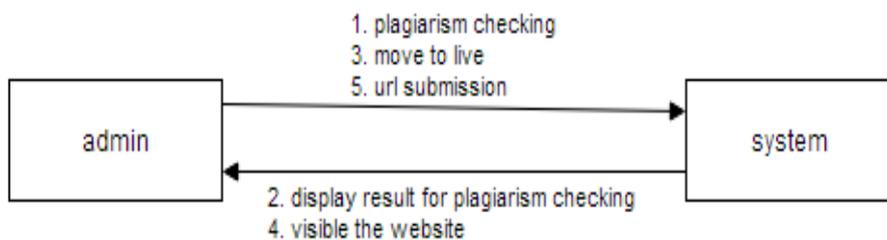


Figure 3. Collaboration diagram for event marketing

Here in the collaboration diagram the action taken by the admin and response of the system for event marketing is drawn.

2.1.4. State chart diagram

State chart diagram is an illustration of the states an object can attain as well as the transitions between those states. A state defines a stage in the evolution or behavior of an object, which is a specific entity in a program or the unit of code

representing that entity. A state diagram resembles a flowchart in which the initial state is represented by a large black dot and subsequent states are portrayed as boxes with rounded corners.

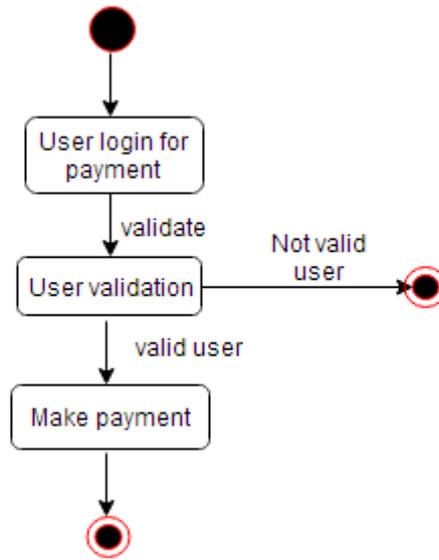


Figure 4. State chart diagram for payment and checkout

The state chart diagram implies user validation process in the system. Here if the user login information such as username and password is correct, then the user will be allowed to make payment. Else they are not allowed for payment.

III. MODULES

3.1. EventMarketing

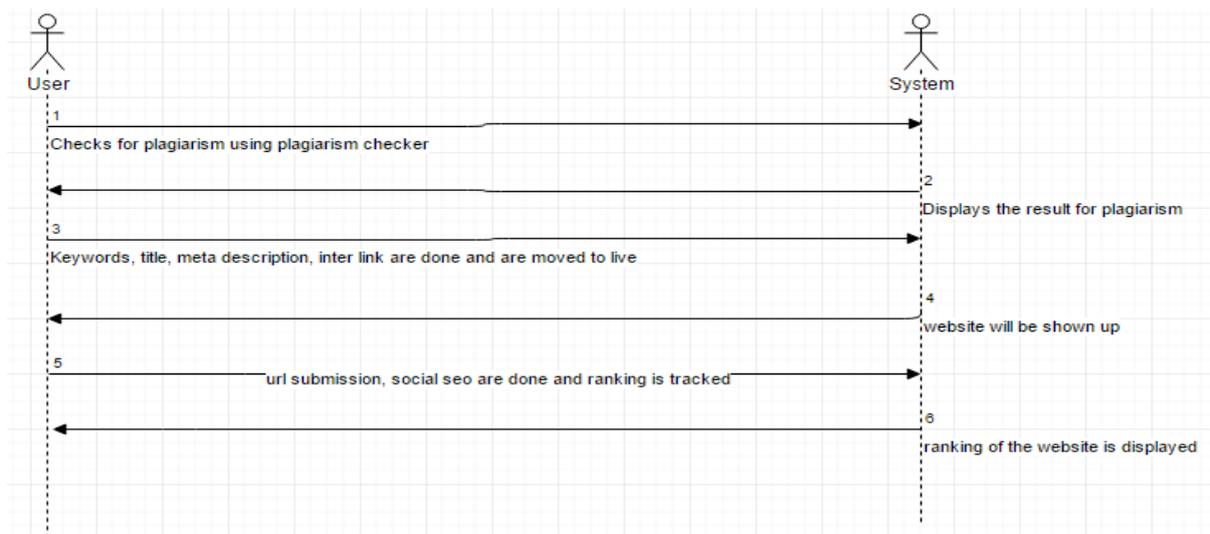


Figure 5. Sequence diagram for event marketing

The event marketing module generally falls under following category.

- Plagiarism Checking.
- Content Modification.
- On- page SEO.
- Off- page SEO.
- Rank Tracking.

3.1.1.Plagiarism Checking

Plagiarism checking detection is the process of locating instances of plagiarism within a webpage. In this checking process we use the plagiarism checker. If it gives the result for plagiarized content in the website, then we have to change the content.

3.1.2. Content Modification

After checking the plagiarism, the contents which comes under plagiarized content should be changed to a new content. Provide high quality content to the website for interacting with the user.

3.1.3. On- page SEO

On – page SEO is Creation of unique Keywords, Titles, Meta Description, Creation of web pages for Primary Keywords, Inter – link and Back – link Generation, URL Submission.

3.1.4. Off- page SEO

Off – page SEO is posting content in Social Networking Sites such as Google+, LinkedIn, Facebook, Blogger, etc. Sharing of images in Flickr as well as Participating in Yahoo Question and Answers.

3.1.5. Rank Tracking

After completion of above process tracking the rank of the website is the main task. Searching the keyword in search engine which is written during the keyword writing step. If the result of the search gives this website then event marketing reaches success state. Otherwise do the above process again and again until the appropriate result is obtained.

3.2. EventRegistration

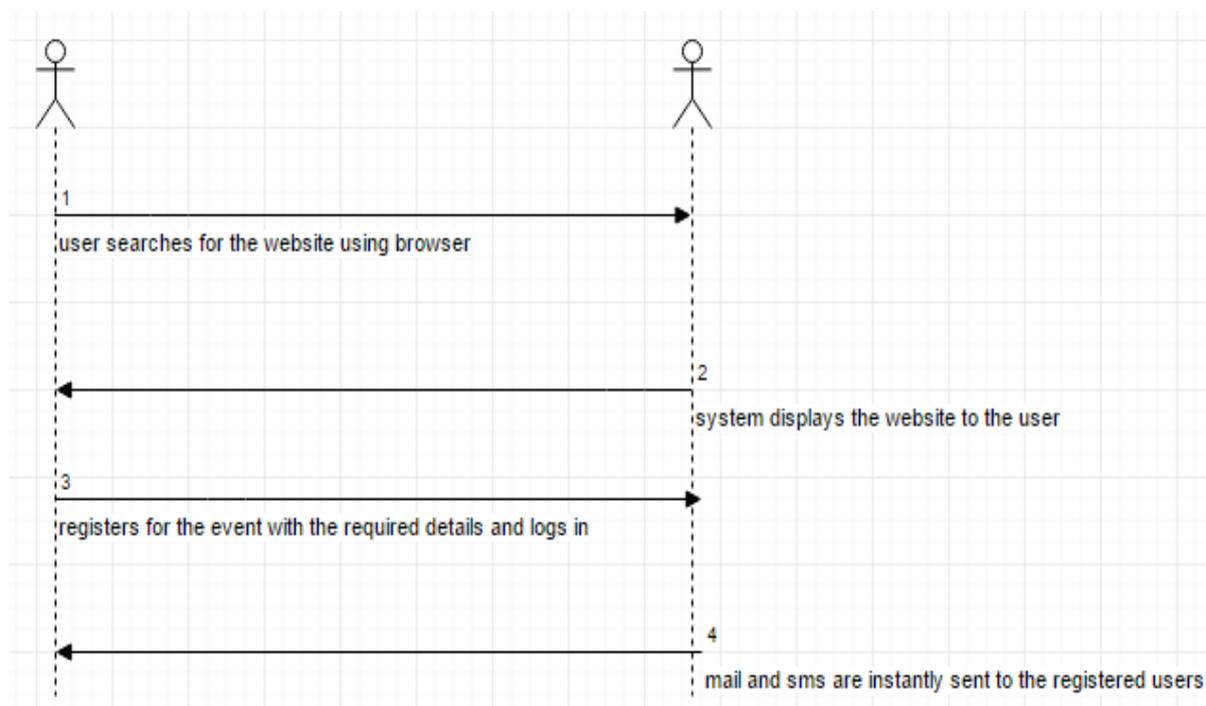


Figure 6. Sequence diagram for event registration

Students who are interested to participate in various events conducted by Auto Mech Student Design Competition Pvt Ltd has to register for the event. The students has to go to their interested event registration page in www.amsdc.org and should register with the required details such as team name, e-mail id, college name, captain name, etc. Once they are registered successfully, instant mail with username and password for them to login to their account and sms is sent to the registered students. They will also receive mails regarding their event update notifications.

3.3. EventMonitoring

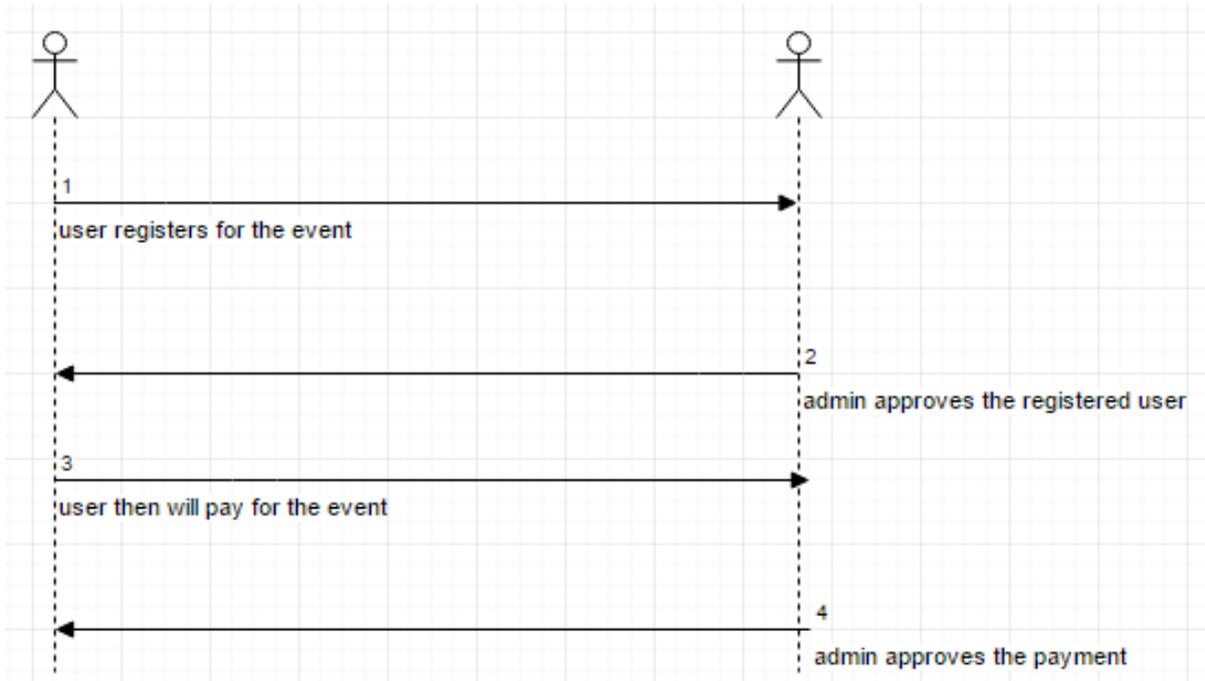
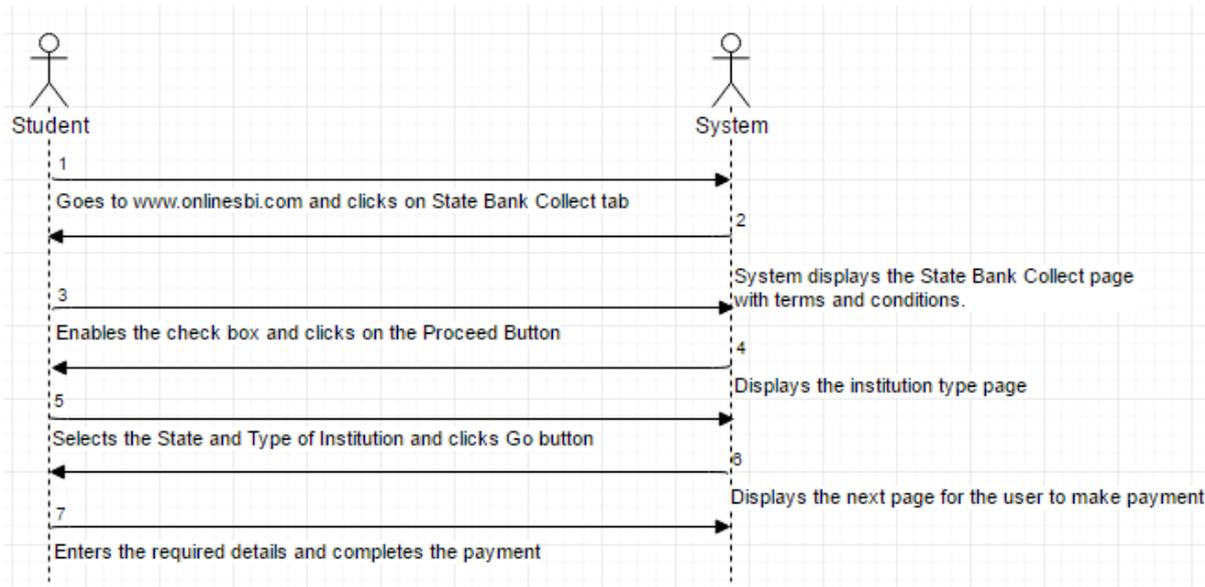


Figure 7. Sequence diagram for event monitoring

Admin can login to the website using his valid credentials. In the dashboard, he can view the total number of students registered for various events. He can also view the full details of the registered students. E-mails can also be sent by him separately to inform the students about the event updates. Hence there will be an efficient communication between the



admin and the students.

3.4. Payment and checkout

Figure 8. Sequence diagram for payment and checkout

Payment can be made online and the url is got from SBI bank, which is a paid type. The registered student has to go to www.onlinesbi.com and has to click on the State Bank Collect tab which is at the header. In the terms and conditions page, enable the check box and click 'Proceed'. Select the State and Type of Institution as Tamil Nadu and Educational Institution and Click on Go button. On the next page select the Institution Name as Auto Mech Student Design Competition Pvt Ltd and enter your Credit/Debit/Net banking details to complete the payment.

IV. REPORT SCREENSHOTS

4.1. Event marketing module

4.1.1. Keyword search

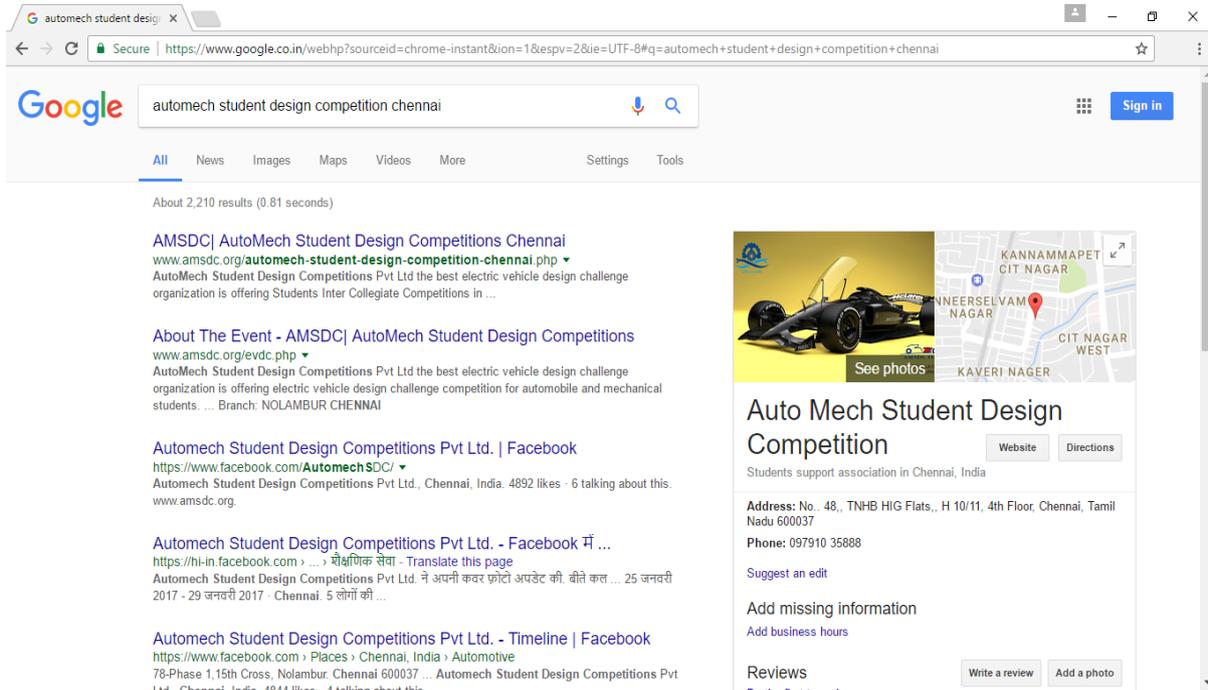


Figure 9. Keyword search using google, ranking 1 and 2

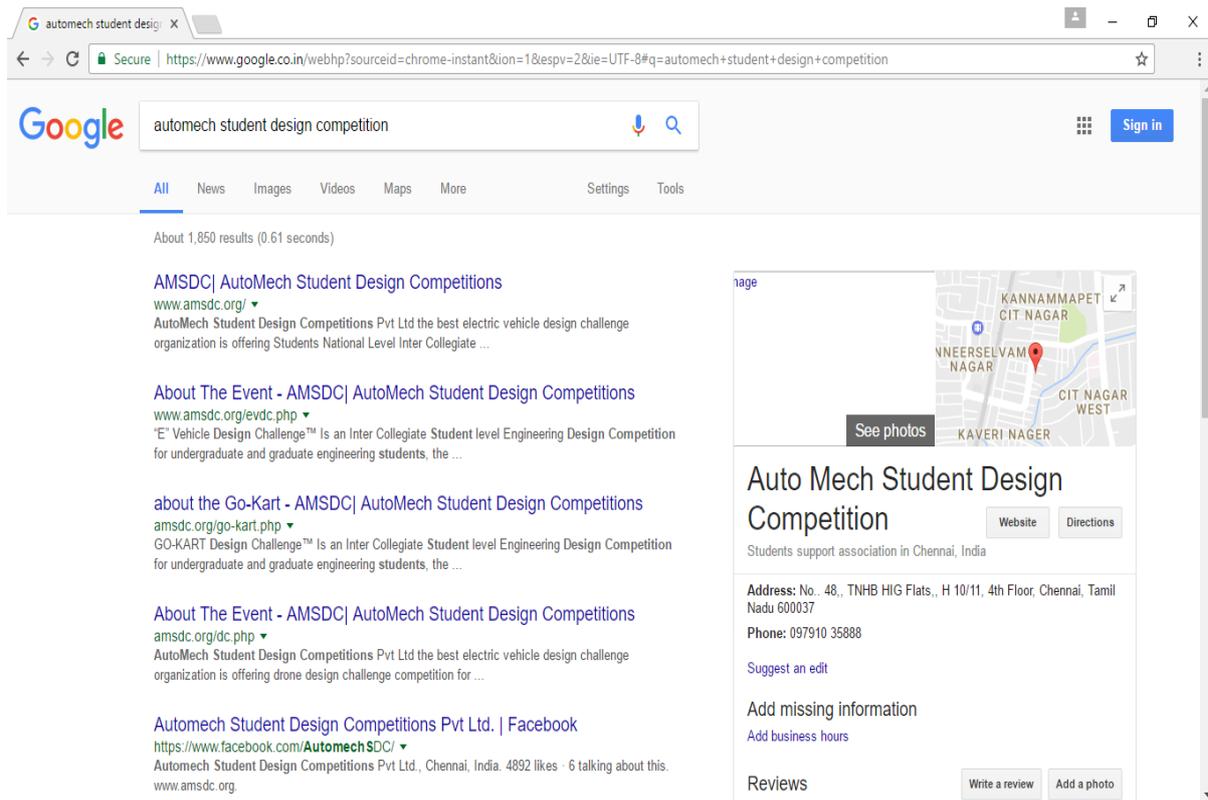


Figure 10. Keyword search using google, ranking 1,2,3 and 4

4.2. Event registration module

4.2.1. Email verification

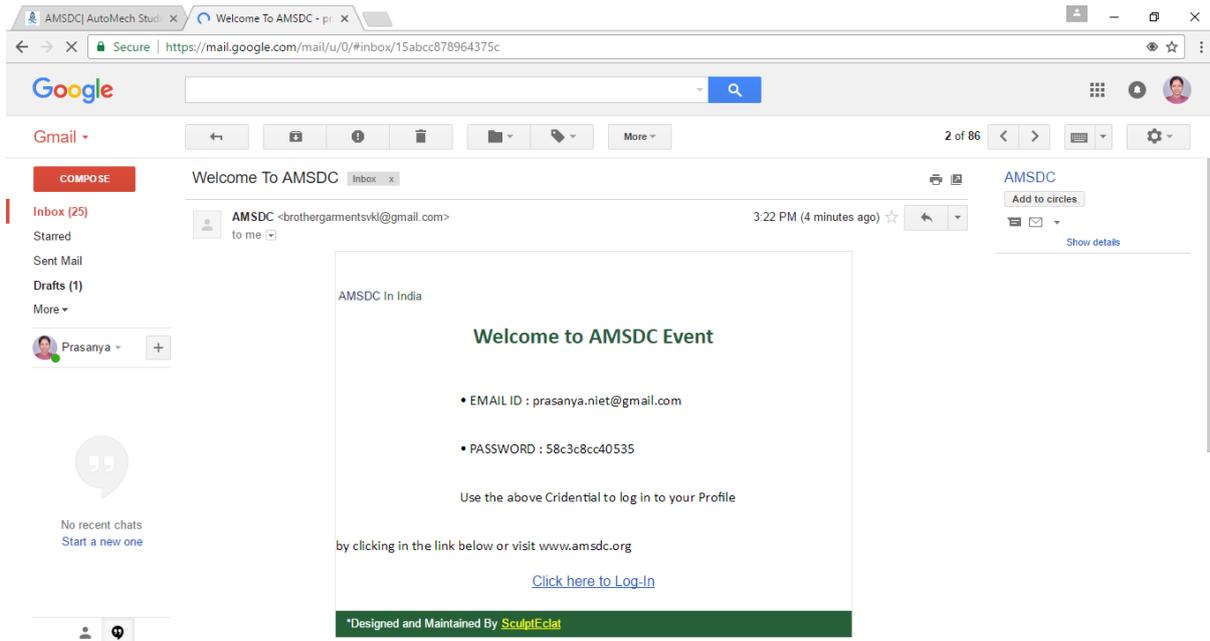


Figure 10. Email verification for registered student in AMSDC event

4.2.2. SMSconfirmation

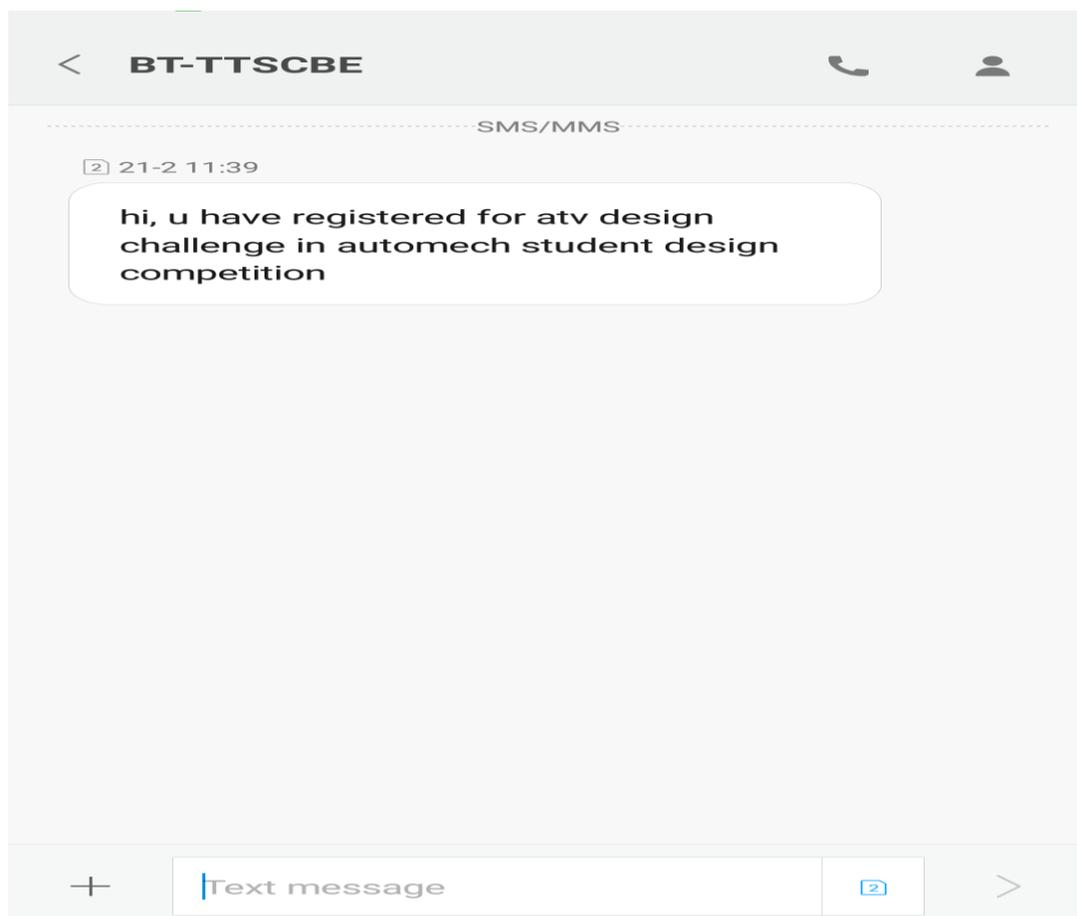


Figure 10. SMS confirmation for registered student in AMSDC event

4.3. Event monitoring module

4.3.1. Admin login

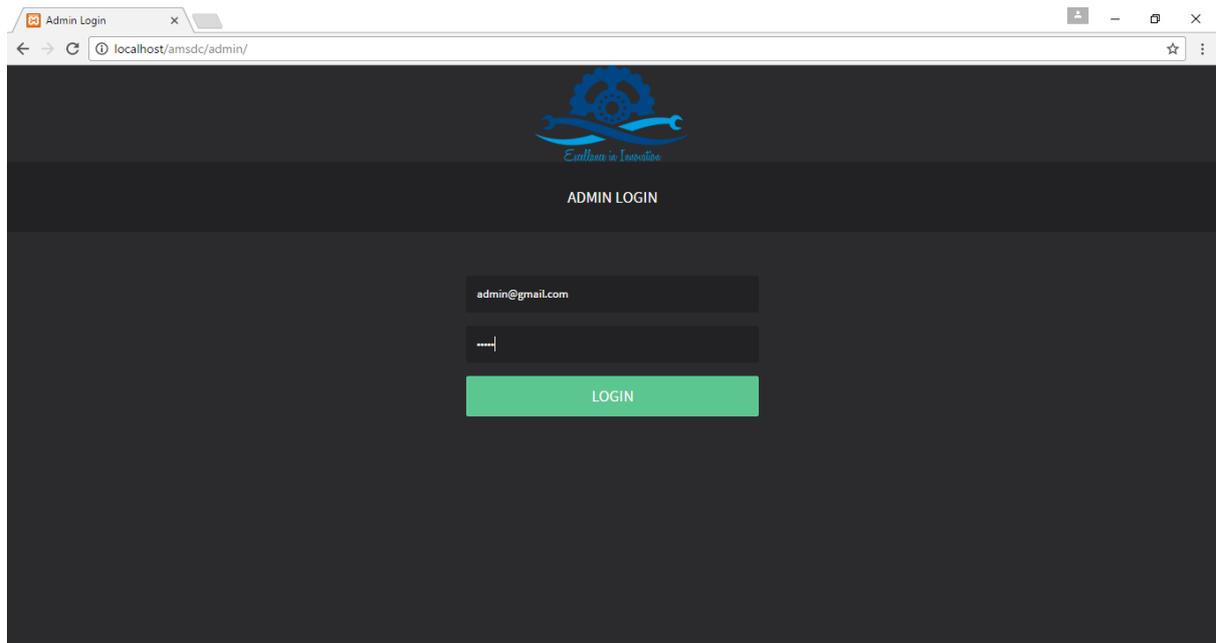


Figure 11. Admin login form

4.3.2. Admin dashboard

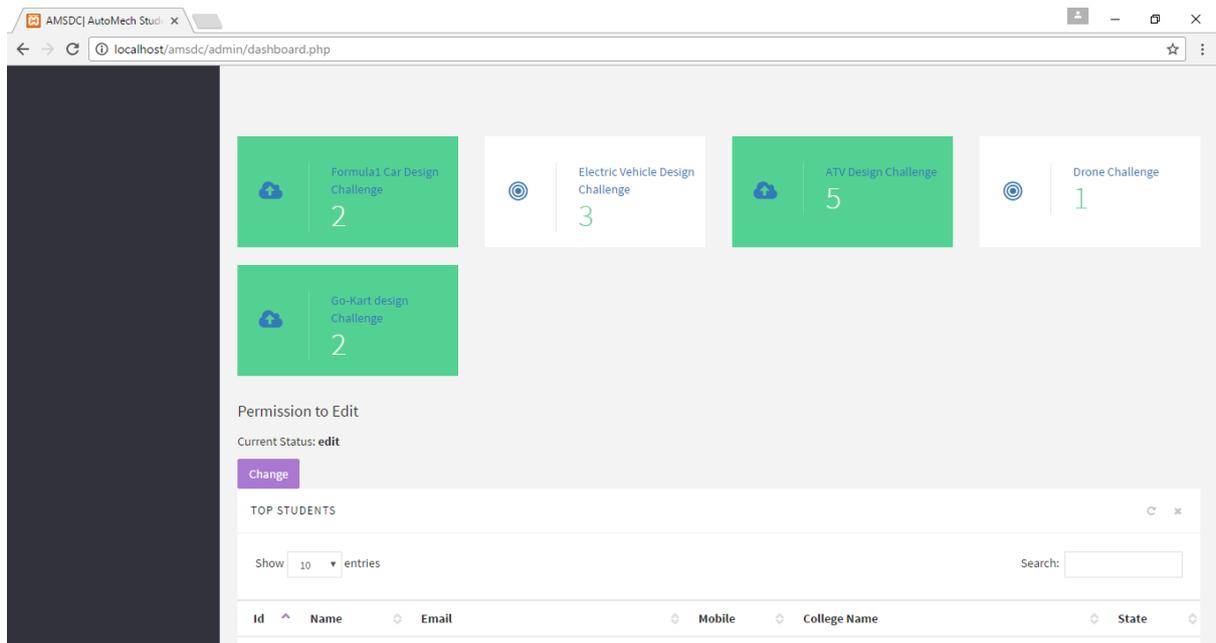


Figure 12. Admin dashboard to view details of registered students for each event

4.4. Payment and checkout module

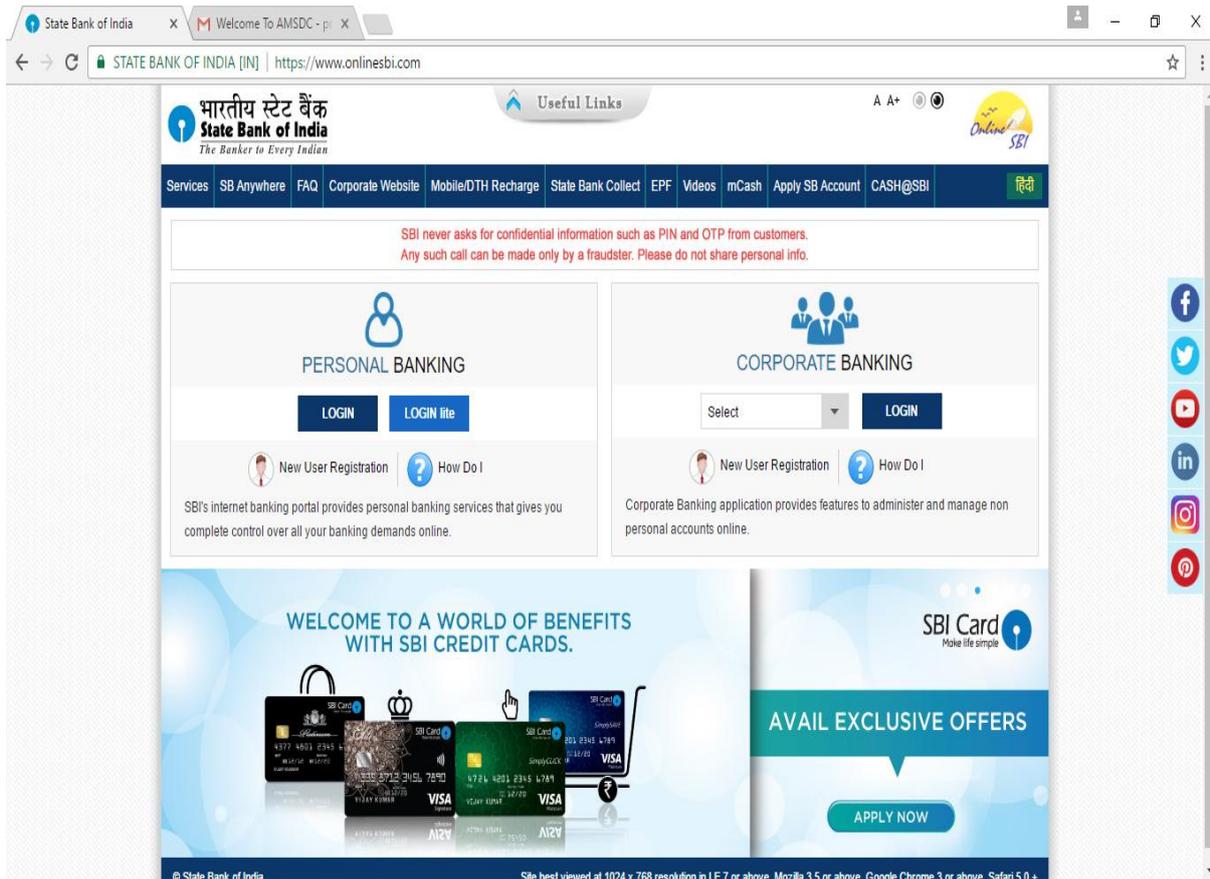


Figure 13. Login to State Bank of India

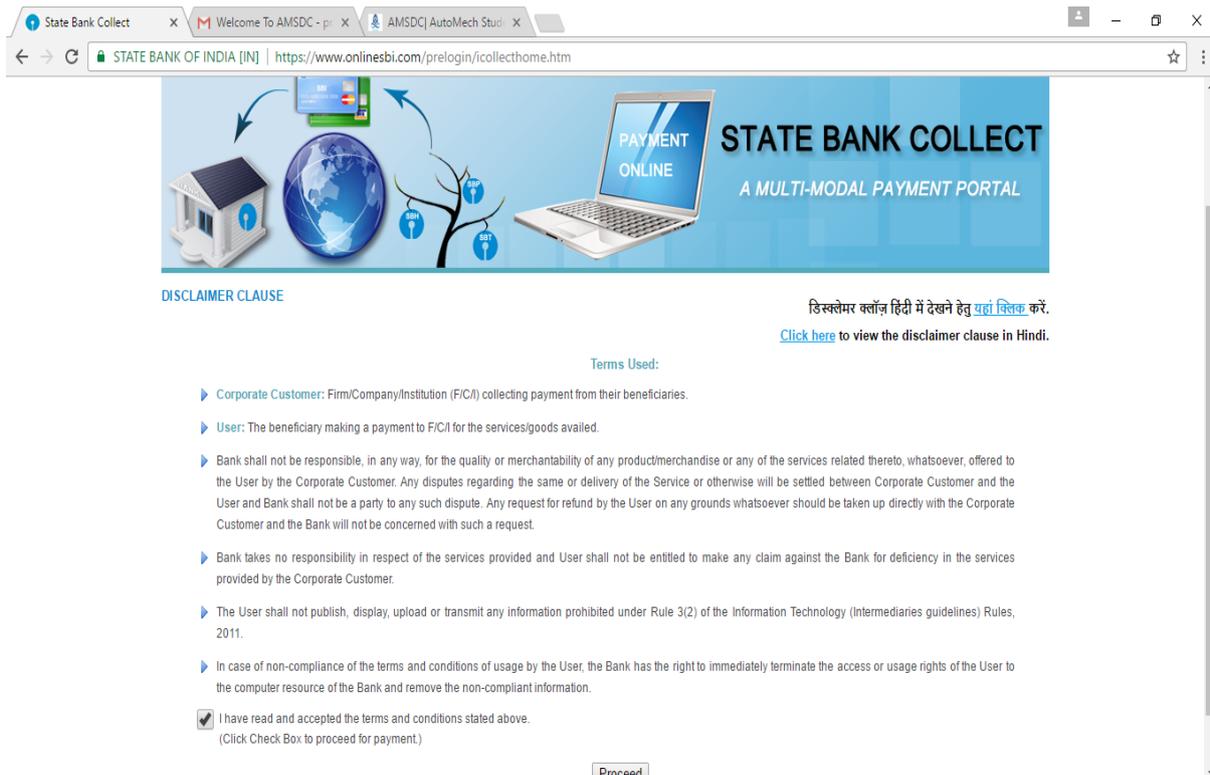


Figure 14. Accepting terms and conditions in State Bank Collect

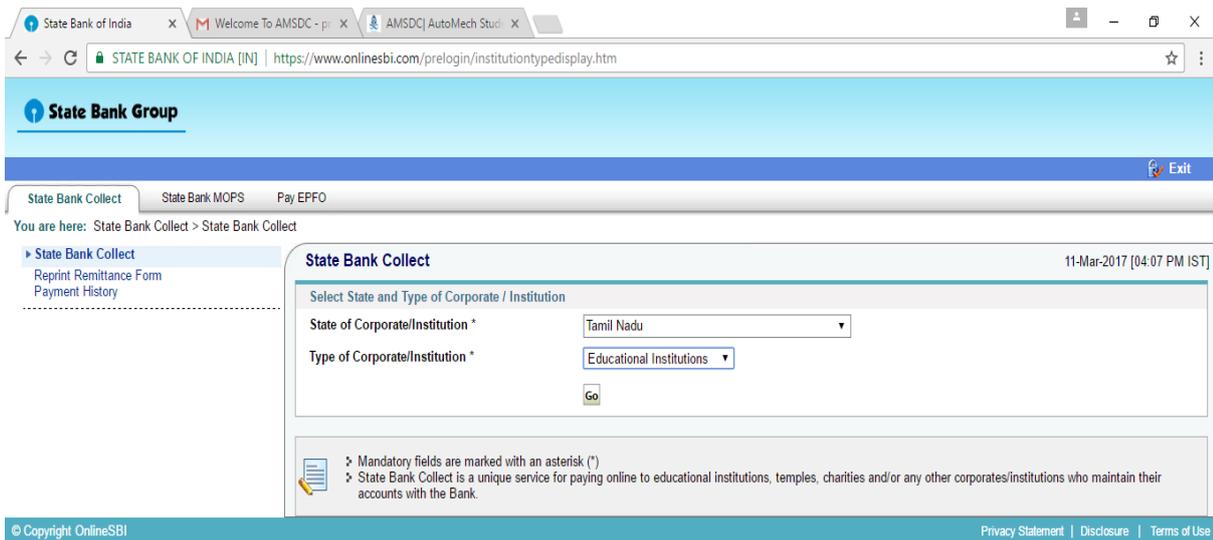


Figure 15. Selecting Institute State and Type in State Bank Collect

I. CONCLUSION

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project. Event Marketing System has increased the visibility of the website and has even got 1st rank in Google Search Engine for some keywords. Event Monitoring System has made a user friendly interface for the Admin to view the details regarding the registered students. Event Registration System enabled Students to receive automatic mail and sms as soon as they complete their registration. Payments & Checkouts System has supported the Students to pay their Registration Fees within seconds.

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BIOGRAPHY

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