1. The Idea:

Each year, members of the world's academic community (professors, researchers, students) attend academic conferences in various diverse disciplines, which are hosted in an equally diverse set of locations. Such participation involves a significant amount of logistical information-gathering, mainly depending on where the conference is held. Issues like means of travel and boarding are foremost importance. Also, participants are interested in details such as weather conditions in that region, places of tourist value, and so on.

Our mashup “The Academic Conference Knowledge Enabler” (TACKLE) aims to serve such an academic audience, by conflating segments ranging from ticket and travel planning aids to current weather to hotel and food facilities in the region. The mashup also shows at a glance, a geographically organized display of conferences scheduled in the immediate future.

2. The Functionality:

The TACKLE mashup provides the following functional items:
- Ability to view upcoming conferences in a given month (currently, all conferences listed in the ACM calendar are displayed) by region
- Ability to view conferences by selected month
- Search by keywords to enable searching by Conference Name or Location
- Obtaining the following information about a certain conference location:
  - Search for Flights from your location to the conference venue for the dates of the conference (both Round-Trip and One-Way)
  - Search for Hotels options at the venues
  - Current weather indicators for the location
  - Top Google search results from Maps, Web, Video, and Blogs to help obtain immediate context
  - Links to most likely information keywords for the location, such as searching for Shopping, Tourist attractions etc. are provided

3. The Marketability

   • Target Audience
     The average number of participants in a large-scale conference is usually in the hundreds, of which a sizeable chunk comes from outside the region or even outside the country in which the event is being held. These researchers and students will form a natural audience for such a mashup. Participants face several issues planning logistical issues for a trip to a conference, and resolving these issues becomes cumbersome due to lack of consolidated and valuable information. This is precisely the gap that we aim to fill.

   • Ad-based Marketing
     The introduction of relevant text-based advertisements will make supporting such a mashup a viable option for the hosting service.
4. *The Design and APIs*

The following APIs were used:

- Google Maps: to obtain geographical visualizations
- Yahoo Farechase: to obtain Hotel and Flight fares
- Weather Bug: to obtain current weather information
- Google Search API: quick and pre-formed search links
- ACM events calendar: this provides a list of various upcoming academic conferences
- Google Geocoder: to obtain geographical coordinates of a specific location

5. *Design:*

At the heart of the mashup is the ability to extract academic conferences information from the ACM events calendar (http://campus.acm.org/calendar/). This calendar is published as an html page, but in a fairly well-defined structure, which enables us to extract relevant information such as conference titles, dates, and locations. A script downloads this ACM events calendar at regular intervals (1 day), parses it and updates a database and some XML files that contain this extracted information.

Then, by using the *Google Maps API*, we embed maps in our mashup. Maps can be browsed by location. The *Google Geocoder API* is used to obtain the geographical coordinates (latitude and longitude) for each conference location. Bubble markers are placed on the maps to indicate the locations. Hovering over such a marker brings up an information bubble which contains the following:

- Conference Title
- Conference Location and a link to it
- Conference Dates
- A link to the conference website

Clicking on the Conference Location brings up a location-specific page. This page is another sub-mashup. Useful information pertaining to that location is displayed. *Yahoo Farechase API* is used to help user find best deals for hotels near conference location. This also provides information on flights to the conference city from a given source (home) town for the conference dates. These fields can be adjusted by the user.

The *Weather Bug API* publishes the *Live Weather* for a location in RSS format for a given latitude and longitude. Again, using Google's Geocoding API, we find the coordinates of a location and supply it to weatherbug.com and obtain the RSS feed file corresponding to it. The RSS is then parsed to get the weather conditions and is published as part of the mashup.

Using *Google's Search API*, we also provide results specific to the conference location which include results for Local, Web, Video as well as Blogs. The Search module looks up conference names and locations in the database and return query results for these categories to the user. A search box is also available to search by conference name or location.

**Demo URL:** [http://www.it.iitb.ac.in/~saurabh/map](http://www.it.iitb.ac.in/~saurabh/map)
Key Screen Shots

1. Homepage

The Academic Conference Knowledge Enabler (TACKLE)

Conferences: March 2007.

2. Locating a conference through search

The Academic Conference Knowledge Enabler (TACKLE)

3rd International Conference on Web Information Systems and Technologies
Barcelona, Spain
March 3rd-6th
Conference Website

Powered by Google Maps, Yahoo Fareshare, Weather Bug, ACM and Google Search
3. Conference location information

The Academic Conference Knowledge Enabler (TACKLE)

3rd International Conference on Web Information Systems and Technologies, Barcelona, Spain (March 3rd-5th)

Live Weather Conditions for Barcelona, Spain

 Mostly Sunny

Temperature: 17.9 °C
Humidity: 77 %
Wind Speed: 20 km/h NE
Pressure: 1025.06 mbar
Dew Point: -8 °C
Gusts: 4 km/h NE
Rain Today: 0.0 mm