COMP 3311: Database Management Systems

Conference Submission Review Management System

Course Project Description

The Computer Science community wants to develop an information system to provide data management services that will allow conferences to manage the submission review process. A conference submission can be a research, experience or vision paper or a demo proposal, which describes prototype software to be demonstrated at a conference. The system should be able to store information about submissions and their authors as well as about reviewers and their reviews of submissions. Moreover, the system should be general purpose and standalone so that each conference can use it to manage its own submissions and reviews.

The users of the information system should be:

- authors of submissions who will use it to manage information about themselves and their submissions;
- conference program committee members who will use it to manage information about themselves, to indicate preferences for reviewing submissions, to produce reviews and to discuss their reviews;
- the program committee chair(s) who will use it to manage the program committee and the submission review process.

Conference Program Committee

Submissions should be reviewed by a program committee (PC) composed of

- a *PC chair* (typically only one person, but there can be two or more PC chairs);
- *PC members* (ranging from a small number to 100 or more).

Every PC chair should also be a PC member. The information that should be stored about a PC member is a unique username, as well as a password, title, name, affiliated institution (i.e., university or company name), country and email. The system also should record the role that each PC member plays in the program committee (i.e., chair or member).

Paper Submission

Paper submission should be done in two stages. In the first stage, authors should submit the following information.

- Submission information — title, abstract and type of submission, i.e., research, experience, vision or demo.
- Author information — for each author title, name, affiliated institution (i.e., university or company name), country and email; which author is the contact author and whether an author is also a program committee member.
- Login information — a unique username and a password for the contact author since he/she is responsible for managing a submission.

The same person can be an author (and contact author) of more than one submission. Each submission is assigned a unique number, which serves as the submission identifier.

In the second stage, the contact author should submit a digital version of their paper (e.g., as a PDF file), which is disseminated to the PC members for review.

At any point in the submission review process, the contact author should be able to withdraw a submission.

Submission Review

Based on the submitted abstracts, PC members should indicate their preference for reviewing submissions. Preferences should be specified as an integer ranging from 1 to 5 with the following meaning.

1. I cannot review this submission under any circumstances—I have a conflict of interest.
2. I do not believe I am a suitable reviewer for a submission on this subject.
3. I am really not an expert, but I guess I could review a submission such as this.
4. It would be appropriate for me to review this submission.
5. I absolutely must review this submission!

The PC chair should use the indicated preferences to assign submissions to PC members for review. Each submission should be assigned to at least three PC members for review (but it could be more than three).

PC members should submit a review (see *Appendix A* for an example) for each submission assigned to them. A review contains three types of information.

- Questions/fields that require a single letter (Y-yes / N-no / M-maybe) value to be entered.
- Questions/fields that require a numeric value (either integer or decimal) to be entered.
- Questions/fields that require text to be entered.

After the deadline for receipt of reviews, those PC members who have reviewed a submission should be able to view each other's reviews and hold a discussion about the submission, if necessary (see *Appendix B* for a summary of some of the information extracted from the reviews for a submission and an ensuing discussion). A discussion must be conducted for those submissions that have a spread of more than 1.0 in their overall rating score, where spread is the divergence in scores among the reviewers of a submission and is calculated as follows for a submission.

spread = maximum *OVERALL RATING* - minimum *OVERALL RATING*

The purpose of a discussion is to attempt to narrow the divergence of opinion on a submission. Thus, PC members should be able to change their review as a result of such a discussion. For each comment that is part of a discussion, which PC member made the comment as well as the order in which the comment was made should be recorded. Following the discussions, the PC chair should make a decision (either accept or reject) for the submission.

Appendix A

EXAMPLE REVIEW FORM

INFORMATION TO BE RETURNED TO THE AUTHOR(S)

Submission Number:

Title:

Author(s):

Submission type: ☐ research ☐ experience ☐ vision ☐ demo

Use Y(es) or N(o) and if absolutely necessary M(aybe) to answer the following (you must explain (N)o and (M)aybe answers in the comments section).

The submission is relevant to the conference (Y/N/M):

The submission is technically correct (Y/N/M):

The length and content of the submission are comparable to the expected final version (Y/N/M):

Reviewer Confidence (0.5-1):

For the following categories, please assign integer scores from 1 to 5 using the following criteria.

5: Accept	(Comparable to good submissions in the past)
4: Weak Accept	(I vote acceptance, but won't argue for it)
3: Neutral	(I am not impressed, but I won't object if others like it)
2: Weak Reject	(I don't like this submission, but I will not argue against it)
1: Reject	(I will argue to reject this submission)

Originality	Impact	Presentation	Technical Depth	OVERALL RATING

Main Contribution(s):

Three strong points of the submission:

Three weak points of the submission:

Overall Summary (the rationale for your recommendation—maximum 3 lines):

Detailed Comments:

INFORMATION NOT TO BE SHOWN TO THE AUTHOR(S)

Program committee member:

Confidential comments to the PC, if any:

Appendix B

EXAMPLE REVIEW/DISCUSSION SUMMARIES

Summary of Selected Review Information

Submission number: 15
Title: Scheduling of Transactions in Multidatabase Environments
Author(s): Phil Jones and David Howe
Submission type: research

Overall summary for PC member Agnes Gow:
The major contribution is addressing the deficiency of some major concurrency control schemes proposed for MDBS. However, the discussion on the solution is rather sketchy.

Overall summary for PC member Brian Au:
The paper is relatively well written. It is well structured but unfortunately ill positioned. The rationale is not well described and the heterogeneity concept seems to be misunderstood.

Overall summary for PC member Harry Zhang:
Like most papers on concurrency control in MDBS, this one also presents something technically sound, but practically useless.

Summary of reviews

PC Member	Relevance	Correctness	Length& Content	Confidence	Originality	Impact	Presentation	Technical Depth	OVERALL
Agnes Gow	Y	Y	Y	1	4	2	4	2	3
Brian Au	Y	Y	Y	.9	3	2	3	3	2
Harry Zhang	Y	Y	Y	.8	4	3	4	4	4
					3.67	2.33	3.67	3.00	3.00

Summary of Discussion

From Agnes Gow:
Just to kick off this discussion, I agree with Harry's assessment that the constraints on the legal schedules are very stringent and thus make the proposed approach of little or no use. The two other major problems are the technical incorrectness I spotted (please see my review) and the "liberal" use of other people's text.

From Brian Au:
Yes, it seems to me that we all agree that the approach is too narrow/restrictive — and that the technical content is either lacking or possibly repetitive of other works. For my part, I think the score is sufficiently low to keep it from being accepted.

From Harry Zhang:
On re-reviewing after digesting other reviews, I decided to reduce my overall score to 3. I agree that the approach is very restrictive. However, I'd like to give the paper some points for pointing out an anomaly, which can raise problems, even if it fails to correctly assess the problem and provide a sound solution.

From Agnes Gow:
It seems that we have narrowed the spread enough for this submission. Moreover, with the revised overall score it is unlikely to be accepted.

From Harry Zhang:
OK I am happy with this result. I guess we are done discussing this submission.